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744458
Supr. Ct.

TRANSCRIPT OF RECORD

Supreme Court of the United States

OCTOBER TERM, 1946

No. 680

CHAMPION SPARK PLUG COMPANY, PETITIONER,

vs.

PETER SANDERS, SAMUEL SANDERS AND HARRY SANDERS, DOING BUSINESS AS THE PERFECT RECONDITION SPARK PLUG COMPANY

ON WRIT OF CERTIORARI TO THE UNITED STATES CIRCUIT COURT OF APPEALS FOR THE SECOND CIRCUIT

PETITION FOR CERTIORARI FILED NOVEMBER 8, 1946.

CERTIORARI GRANTED DECEMBER 16, 1946.

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United States Circuit Court of Appeals

FOR THE SECOND CIRCUIT.

Appeal No. .....

CHAMPION SPARK PLUG COMPANY, a corporation,
Plaintiff-Appellant,

vs.

PETER SANDERS, SAMUEL SANDERS and HARRY SANDERS, doing business as THE PERFECT RECONDITION SPARK PLUG COMPANY,
Defendants-Appellees.

Statement Pursuant to Rule 13.

This action was commenced April 12, 1944 upon the filing of the complaint and the issuance of the summons, Champion Spark Plug Company, a corporation, Plaintiff, and Peter Sanders, Samuel Sanders and Harry Sanders, doing business as The Perfect Recondition Spark Plug Company, Defendants, were the original parties: and no change has taken place in the parties. The summons and complaint were served upon defendants April 13, 1944. The answer was filed May 2, 1944. No defendant was arrested, no bail was taken and no property was attached or arrested. A motion for preliminary injunction was heard by the Honorable Mortimer W. Byers, U. S. D. J., and an opinion thereon handed down June 15, 1944. An order on the motion for preliminary injunction was entered November 16, 1944, and modified by a consent order

on December 6, 1944. The trial was had before the Honorable Mortimer W. Byers, U. S. D. J., commencing on March 28, 1945 and ending on April 4, 1945. No question was referred to a Commissioner, Master or Referee. The final decree was entered on September 1, 1945. The defendants' appeal was taken November 30, 1945, and the plaintiff's cross appeal was taken December 1, 1945.

Complaint.

IN THE

UNITED STATES DISTRICT COURT,

FOR THE EASTERN DISTRICT OF NEW YORK.

Civil Action No. .....

[SAME TITLE]

To the Honorable Judges of the District Court of the United States in and for the Eastern District of New York.

Plaintiff, Champion Spark Plug Company, a corporation, brings this complaint against Peter Sanders, Samuel Sanders and Harry Sanders, defendants, doing business as The Perfect Recondition Spark Plug Company, and for its causes of action respectfully shows unto this Honorable Court as follows:

Complaint.

1. Plaintiff is a corporation duly incorporated under the laws of Delaware on December 5, 1938, and is a citizen of said state with its principal office and place of business at Toledo, Ohio. Upon its incorporation plaintiff succeeded to the business, assets and good will of Champion Spark Plug Company, incorporated under the laws of Delaware on September 11, 1916, which said company on or about said date succeeded to the business, assets and good will of Champion Spark Plug Company, a corporation of Massachusetts with its principal office and place of business at Toledo, Ohio. 7

2. Defendants Peter Sanders and Harry Sanders are citizens of the United States and residents of Brooklyn, in the County of Kings and State of New York, and defendant Samuel Sanders is a citizen of the United States and a resident of the City of New York, County and State of New York, all in the Eastern District of New York, where they conduct the acts hereinafter complained of under the name and style The Perfect Recondition Spark Plug Company. 8

3. This is an action for infringement of a registered trade-mark and for unfair competition in trade. The jurisdiction of this court as to the cause of action for trade-mark infringement depends upon the trade-mark laws of the United States and as to the cause of action for unfair competition depends upon diversity of citizenship. The amount in controversy in the cause of action for unfair competition exceeds the sum of Three Thousand Dollars ($3,000.00) exclusive of interest and costs. 9

4. Practically the entire business of plaintiff and its said predecessors for more than thirty years past has

10 been the manufacture and sale of spark plugs and spark plug cores and insulators, and during all said period the word Champion has been used by them as a trade-mark for spark plugs sold in interstate and foreign commerce. Plaintiff and its predecessors have generally applied said trade-mark by printing it on that portion of the insulator which is exposed to view when in use as an element of a complete assembled spark plug, and also by printing it on the cartons and containers in which said spark plugs are packed for shipment and sale to the motoring public. One each of plaintiff's spark plugs, cartons and containers bearing the trade-mark Champion as it has been so ap-
11 plied are filed herewith as Plaintiff's Exhibits 1, 2 and 3, respectively.

5. On April 25, 1913, plaintiff's predecessor, Champion Spark Plug Company of Massachusetts, being then the exclusive owner of the trade-mark Champion for spark plugs, filed in the United States Patent Office its application for registration thereof in Class No. 21, Electrical Apparatus, Machines and Supplies, and having complied with all the provisions and requirements of the statutes of the United States in such case made and provided, after
12 proceedings duly had in accordance with said statutes, a certificate of registration of said trade-mark Champion for spark plugs was, on August 12, 1913, issued to said applicant as Registration No. 92,950, a copy of which is filed herewith and marked Plaintiff's Exhibit 4.

6. Since prior to said registration date the name Champion has been continuously used by plaintiff and its predecessors as a trade-mark for spark plugs in interstate and foreign commerce and now is the sole and exclusive property of plaintiff as a trade-mark for spark plugs.

Said Certificate of Registration No. 92,950 has, by mesne assignments in writing, become the sole and exclusive property of plaintiff, together with the good will of the business of its said predecessors, Champion Spark Plug Company of Massachusetts and Champion Spark Plug Company of Delaware. Said assignments were duly recorded in the United States Patent Office, and the same or duly certified copies thereof are ready here in court to be produced as Your Honors may direct. Said certificate was duly renewed by plaintiff's predecessor on April 11, 1933, and a copy of said renewal certificate is filed herewith as Plaintiff's Exhibit 5. 13

7. Plaintiff and its predecessors have manufactured and sold in interstate and foreign commerce nearly one billion spark plugs bearing the trade-mark Champion and have expended more than twenty million dollars in advertising the merits of Champion spark plugs. By reason of the wide general use of plaintiff's said spark plugs and the extensive advertising thereof, users of spark plugs generally throughout the United States have come to recognize spark plugs which bear the trade-mark Champion as possessing superior qualities and durability. 14

8. It has long been the practice of plaintiff and its predecessors to provide a Champion spark plug for every make of gasoline motor and in order to do this Champion spark plugs for a number of years past have been made in a large number of types. Plaintiff now and for a number of years past has manufactured its Champion spark plugs in more than seventy (70) different types and states in its advertising that "There's a Champion spark plug especially designed and made for every engine." Although plaintiff's spark plugs are made in a large 15

16 number of types to meet the varying requirements of different motors, the variations between different types in many instances are slight and are confined largely to the firing end of the plug, which is not visible when the plug is installed in an engine. The use of any type of plaintiff's spark plugs in an engine for which such type is not adapted is likely to give unsatisfactory service.

9. The form and location of the sparking faces of the electrodes in a spark plug and the width of the gap between them (called the spark gap) have a great influence on the operation of the motor in which the plug is used.
17 Too wide a spark gap will cause a motor to miss at high speeds and too narrow a gap will cause it to start and idle poorly. All of plaintiff's spark plugs when they leave its factory have correct electrode facings and spark gaps for the motors in which they are recommended for use by plaintiff. These gaps vary from .015" for some types of Champion plugs to .040" for other types.

10. Plaintiff has at all times used only the highest quality of materials and workmanship in the manufacture of the various parts entering into the construction of
18 its Champion spark plugs and has exercised great care in properly assembling said parts into complete plugs ready for use in automobile motors and other combustion engines. It has been the custom of plaintiff and its predecessors for many years past to sell Champion spark plugs under a guarantee of absolute satisfaction to the user, and it has been the practice of plaintiff and its predecessors for more than twenty-five years to replace or repair free of charge any Champion spark plug which fails to operate satisfactorily in the service for which the plug was recommended by plaintiff.

11. Notwithstanding the care exercised by plaintiff in the manufacture of its spark plugs, the violent usage to which spark plugs are subjected in internal combustion engines causes them to gradually lose their efficiency due principally to erosion of the sparking ends of the electrodes and to the insulators becoming impregnated with and covered by carbon, iron oxides and grease. It is desirable from the standpoint of performance and at the same time economical to remove all makes of spark plugs and replace them with new ones after they have been subjected to long or severe usage. Plaintiff and other leading spark plug manufacturers recognize these facts and many automobile manufacturers advocate and recommend the substitution of new spark plugs in their automobiles every ten thousand (10,000) miles of travel. In purchasing new plugs for use in place of those which have become worn out or defective, car owners commonly have the change made at garages and service stations, where the old plugs are removed by an attendant and left by the car owner. As a result of this practice large numbers of used Champion plugs accumulate at garages and service stations, without cost to them. Car owners thus securing their spark plugs believe and have a right to assume that they are receiving the latest and most efficient product of the particular manufacturer whose plugs they purport to be, and if such plugs do not give satisfactory service they are condemned in the mind of the purchaser who either returns them to the manufacturer for replacement or repair or tries a different make of plug.

12. As a result of extensive advertising and of the high quality and uniform excellency of spark plugs manufactured and marketed by plaintiff and its predecessors

under the trade-mark Champion, plaintiff's said spark plugs have acquired a recognized and enviable reputation throughout the United States and foreign countries. Users of plaintiff's new spark plugs generally are well satisfied with the service they give and in purchasing plugs for use as replacements they generally desire to secure new plugs of plaintiff's manufacture and call for them merely by the name Champion, leaving it to the judgment and integrity of the garageman or attendant to supply them with new Champion plugs of the proper type for their car.

13. Well knowing the above facts, without plaintiff's consent and over its protest, and in infringement of its said registered trade-mark, defendants have, within the Eastern District of New York, and elsewhere within the United States, secured and are securing from garages, service stations and other sources, large quantities of used Champion spark plugs which have been discarded by their owners on the purchase of new plugs, and have been and are subjecting such used plugs to so-called reconditioning processes and treatments in an effort to remove evidences of wear and give the plugs an appearance of newness. The effect of such treatments is to so alter and modify the plugs in important functional respects that they no longer truly represent plaintiff's spark plugs of the type number marked thereon by it and are not Champion spark plugs as that term is used by plaintiff and known and understood by the trade and spark plug users generally.

14. Plaintiff is informed and believes, and therefore avers, that during such process of reconditioning defendants alter said spark plugs in important functional respects, cut off or otherwise remove damaged portions of

electrodes or substitute different and inferior material therefor and thereby change the form of the sparking faces and the location of the spark in the motor cylinders, rebend the remaining portions of the electrodes and so treat such remaining portions as to give them the appearance of newness, provide incorrect and widely varying spark gaps, and subject the insulators to sand-blasting operations which roughen and cut into the body and destroy the shape and impair the efficiency thereof, and such plugs are otherwise refurbished by defendant so as to give them the appearance of newness and to make it impossible for one not an expert to distinguish them from plaintiff's new plugs. Such altered and refurbished plugs still having the well known appearance of plaintiff's new plugs and bearing plaintiff's trade-mark Champion and original type numbers are placed on the market by defendants in direct competition with new Champion spark plugs and at prices substantially lower than the prices charged by plaintiff for its new plugs, which said refurbished plugs are sold by defendants in interstate commerce to service stations, garages, automobile accessory dealers and others with the knowledge that they will be sold to automobile users when new and genuine Champion spark plugs are called for and desired.

15. Plaintiff is informed and believes and charges the fact to be that defendants now have in their possession large numbers of such discarded spark plugs and parts thereof and large numbers of such refurbished spark plugs and that defendants recently have increased their facilities for thus treating used spark plugs and are actively seeking new outlets therefor, and plaintiff fears and has reason to fear that defendants will, unless restrained by the order of this Honorable Court, dispose of

a large part of their stock of used spark plugs and parts and of their records relating to purchases and sales of used Champion spark plugs before this cause can be heard on the merits or on motion for preliminary injunction. Plaintiff further shows that it fears, and has reason to fear, that unless restrained by writ of injunction issuing out of this Honorable Court, defendants will continue to offer for sale and sell and dispose of large quantities of said altered and refurbished spark plugs in the manner hereinbefore described and thereby will cause further irreparable injury to plaintiff and to the reputation and standing of Champion spark plugs.

SECOND, SEPARATE AND DISTINCT CAUSE OF ACTION.

16. Plaintiff, repeating the allegations contained in the foregoing paragraphs and hereby realleging the same as if repeated in full, further alleges that it has been the practice of plaintiff and its predecessors to adopt a different designating letter and/or number for each of its seventy or more different types of Champion plugs and to print the same on its plugs along with the trade-mark Champion. For a great many years it has been plaintiff's practice to supply size charts to those who deal in new Champion spark plugs, which charts list the type of Champion plug which plaintiff recommends for use in each different make and model of automobile. The spark plugs which defendants place on the market, although they retain the appearance of genuine Champion spark plugs, cannot truthfully be referred to as Champion spark plugs of the type number marked thereon by plaintiff for the reason that the same have been so changed in functional features from their original dimensions as they were manufactured and sold by plaintiff that they have ceased to have several of the distinctive

mechanical and functional features which characterize 31
new Champion spark plugs and are in fact no longer Champion spark plugs as that term is used by plaintiff and known to the motoring public.

17. Well knowing the above facts, without plaintiff's license or consent and over its protest, in unfair competition with plaintiff and fraudulently and with intent to deceive the public and thereby to obtain the trade and custom of those who desire to purchase plaintiff's new spark plugs of the type numbers recommended by plaintiff for use in their cars, and with intent to profit from plaintiff's good will and the reputation of its spark plugs, and 32
not relying upon any good will or reputation of their own for their product, defendants have, within the Eastern District of New York, and elsewhere in the United States, sold and offered for sale and continue to sell and offer for sale to the trade and the motoring public their said used, discarded and altered spark plugs of plaintiff's original manufacture without removing plaintiff's trade-mark or type-marks therefrom or changing the appearance of such plugs in their nonfunctional details, and without giving notice to purchasers or prospective purchasers that said plugs have been used and abandoned 33
by their former owners and altered in important functional respects; but on the contrary, defendants purposely retain said trade-mark and type-marks and nonfunctional features and the well known appearance of plaintiff's spark plugs in nonfunctional respects as a means to deceive the motoring public into purchasing defendants' said altered and reconditioned spark plugs as and for new and genuine Champion spark plugs of the type number marked thereon by plaintiff; and with the purpose and intent of furthering such deception and of palm-

34 ing off on the motoring public their said reconditioned plugs as and for new and genuine Champion plugs of the type number originally stamped thereon by plaintiff, defendants mark, stamp or print on the cartons and containers for their said spark plugs the name Champion or an abbreviation thereof and plaintiff's original type numbers, which type numbers no longer correctly apply to defendants' said plugs because of their changed and altered condition in functional details.

WHEREFORE, and because plaintiff has no adequate remedy at law in the premises, plaintiff prays:

35

1. That said Certificate of Registration No. 92,950 be declared valid and that plaintiff be declared to be the lawful owner of same and of the trade-mark therein shown and described.

2. That the sale or offering for sale by defendants, in interstate commerce, of reconditioned spark plugs bearing the trade-mark Champion, in any shape, manner or form, may be declared to be an infringement of plaintiff's said registered trade-mark.

36

3. That the use by defendants of the name Champion on or in connection with the marketing of used and reconditioned or otherwise treated spark plugs may be declared to be unfair means of competing with plaintiff.

4. That the use by defendants of plaintiff's original type number on or in connection with the marketing of any used and reconditioned or otherwise treated spark plug of plaintiff's original manufacture may be declared to be unfair means of competing with plaintiff.

5. That printing, painting, stenciling or otherwise 37
applying or affixing the word Champion or an abbreviation thereof, to or upon the cartons, boxes, containers or wrappers in which defendants' spark plugs are packed for shipment or sale, or on display cards to which defendants' plugs are attached for display or sale, may be declared to be acts of infringement of plaintiff's said registered trade-mark and acts of unfair competition in trade against the plaintiff.

6. That printing, painting, stenciling or otherwise applying or affixing to or upon the cartons, boxes, containers or wrappers in which defendants' spark plugs are 38
packed for shipment or sale of the type mark or number which plaintiff or its predecessor placed on said plugs when they were manufactured may be declared to be acts of unfair competition in trade against the plaintiff.

7. That the cleaning, polishing, sandblasting, burnishing, painting, lacquering, altering, changing, reconstructing, reconditioning, disassembling, reassembling or modifying by defendants in any manner or to any degree of any spark plug of plaintiff's original manufacture, with the purpose and intent of selling the same or offering the same for sale, directly or indirectly, for further 39
use as a spark plug, and/or the sale by defendants of any such cleaned, polished, sandblasted, burnished, painted, lacquered, altered, changed, reconstructed, reconditioned, disassembled, reassembled or otherwise treated or modified spark plug of plaintiff's manufacture, may be declared to be acts of unfair and unlawful competition in trade against the plaintiff, unless defendants shall before selling or offering to sell any such spark plug (1) completely remove plaintiff's trade-mark, type-mark and other identifying marks therefrom, (2) make such changes

40 in the physical appearance thereof in its nonfunctional features as to make it readily and easily distinguishable from plaintiff's new spark plugs by the ordinary purchaser and/or user of spark plugs, and (3) give adequate notice on or permanently affixed or attached to such plug that the same is a used plug which has been refurbished or reconditioned by defendants.

8. That a preliminary injunction pending final hearing and a perpetual injunction at final hearing be entered herein, restraining and enjoining the defendants, Peter Sanders, Samuel Sanders and Harry Sanders, their rep-
41 resentatives, agents, attorneys, salesmen, workmen, employees, servants, privies and confederates, successors and assigns, and each of them:

(a) From selling or offering for sale or delivering to others for sale any spark plug of plaintiff's original manufacture which has been used and thereafter has been reconditioned or treated in any manner by defendants or others to give it the appearance of newness, unless and until: (1) all trade-marks, trade-names, style marks, size marks and/or brand marks have been completely removed
42 therefrom; (2) the metal shell and bushing nut have been completely covered by permanent paint or lacquer of some attractive color, such as Duco or Dulux or otherwise, and (3) the word Used all in capital letters, has been indented in one face of the hex portion of the metal shell of said plug, in a size not smaller than twelve-point type, *i. e.*, six lines to an inch when set without spaces between the lines, and the letters of the word Used have been filled with a durable heavy white paint, so as to leave each letter of the word Used fully and distinctly visible in white on the colored background previously placed thereon, as required hereby, such indentations in all cases to be of a

depth sufficient to enable them to retain enough white paint to distinctly display each letter of said word in white when the surplus white paint has been wiped from said surface; provided, however, that if any such spark plug shall be so small that the face of the hex is not large enough to receive the word Used in the above prescribed size than the size of the type may be reduced sufficiently to enable said word to be stamped into the hex of such plug, but in no case shall the type be of less size than above prescribed unless the size of the plug shall render such lesser size necessary; 43

(b) From using the word Champion in any form or combination, or any abbreviation thereof, or any similar word, either orally or in writing, in connection with the sale or advertising for sale of used spark plugs which have been reconditioned, refurbished or otherwise treated so as to give them the appearance of newness; 44

(c) From in any way selling or disposing of or encouraging others to sell or dispose of spark plugs of plaintiff's original manufacture, which have been used and thereafter have been reconditioned, refurbished or treated in any manner to give them the appearance of newness, when Champion plugs are called for or desired; 45

(d) From destroying, mutilating, or removing from the jurisdiction of this Court any books, records, papers, correspondence or documents of any kind showing purchases, sales or deliveries of used spark plugs having the trade-mark Champion thereon, or showing the reconditioning, treating or reconstructing of any such spark plugs or the cost thereof, or to whom the same were sold or delivered, or the prices paid or obtained therefor, or from whom the same were purchased, or where they were

46 purchased or obtained, or any books, records, papers, correspondence, advertising matter or documents of any kind relating to the defendants' business of reconditioning, reconstructing, cleaning, treating, selling or vending said used or treated spark plugs.

9. That the United States Marshal for this District be empowered and directed to forthwith seize and take possession of any and all spark plugs, spark plug cores or spark plug porcelains bearing the word Champion either alone or in association with any other word, figure or letter, however acquired, together with any and all
47 books, records, papers, correspondence, advertising matter or documents of any kind pertaining or relating to purchases, sales, offers to sell or deliveries by or for defendants of any used spark plugs of plaintiff's original manufacture, or to defendants' business of reconditioning, reconstructing and/or selling thereof, which are or may be found in any office, factory, warehouse or storeroom of defendants, or any of them, or otherwise under the control or in the possession of defendants, or any of them, and to retain possession thereof pending the order or decree of this Court at final hearing; and that at final hear-
48 ing this Court may order the destruction of such seized spark plugs.

10. That this case may be referred to a Master to take and report to the Court an account of the damages which plaintiff has sustained and the profits which have accrued to defendants, or any of them, by reason of defendants' said acts of trade-mark infringement and unfair competition, and that the Master may be given all the powers conferred upon Masters by law and the Rules of Civil Procedure for the District Courts of the United States.

11. That said defendants may be compelled by decree of this Court to pay and render to the plaintiff all profits, gains, savings, earnings and advantages which defendants, or any of them, have derived or may hereafter derive by reason of any of the aforesaid unlawful acts, and that in addition plaintiff may have judgment for the damages so found and the costs of this Court and of the accounting, and that the damages so found may be increased and made punitive because of the wilful and flagrant character of defendants' said unlawful acts. 49

12. That plaintiff may have such other and further relief as to this Court may seem just and as the equities of the case may require. 50

May it please Your Honors to issue a writ of subpoena under the seal of this Honorable Court, directed to said defendants commanding them, and each of them, on a certain day and under a certain penalty to be and appear before this Honorable Court, then and there to answer this complaint (but not under oath, an answer under oath being hereby waived), and to stand to and abide such further orders, directions and decrees as to Your Honors shall seem proper in the premises.

51

CHAMPION SPARK PLUG COMPANY,

By (Signed) FRANK D. STRANAHAN,
Vice President.

(Signed) OWEN & OWEN,
Attorneys for Plaintiff.

(Signed) JOSHUA WARD.
(Signed) WILBER OWEN,
Of Counsel,
1602 Nicholas Building,
Toledo 4, Ohio.

52 STATE OF OHIO,
COUNTY OF LUCAS. } ss.:

Frank D. Stranahan, being duly sworn, deposes and says that he is Vice President of Champion Spark Plug Company, the plaintiff herein; that he has read the foregoing complaint and knows the contents thereof, and that the facts set forth are true except as to those facts which are alleged upon information and belief and as to those facts affiant believes the same to be true.

(Signed) FRANK D. STRANAHAN.

53

Sworn to and subscribed before me this 28th day of March, 1944.

(Signed) JOHN M. ROBINSON,
(SEAL) Notary Public,
Lucas County, Ohio.

54

Answer.

55

DISTRICT COURT OF THE UNITED STATES,

FOR THE EASTERN DISTRICT OF NEW YORK.

[SAME TITLE]

The defendants by their attorney and solicitor John Wilson Hood, answering the complaint herein, state to this honorable court as follows: 56

1. Admit that the plaintiff maintains an office and place of business at Toledo, Ohio, and otherwise deny that they possess any knowledge or information sufficient to form a belief as to the allegations of the first paragraph.

2. Admit the allegations of the second paragraph, except that they deny that the defendant Samuel Sanders resides within the Eastern District of New York, and deny that the defendant Peter Sanders is conducting business individually or as a partner in the Perfect Recondition Spark Plug Company. 57

3. Deny the allegations of the third paragraph, except that they admit that the action purports to be based upon alleged trademark infringement and unfair competition.

4. Admit that the word "Champion" has been used by the plaintiff as a trademark for spark plugs sold in interstate and foreign commerce, and that said trademark

58 has been generally printed upon the insulators of the plug and also upon its cartons and containers, but except as admitted, deny that they possess any knowledge or information sufficient to form a belief as to the allegations of the fourth paragraph.

5. Deny that they possess any knowledge or information sufficient to form a belief as to the allegations of the fifth, sixth, and seventh paragraphs, except that they admit that plaintiff's spark plugs have been extensibly advertised and are generally recognized as being of good quality.

59

6. Deny that they possess any knowledge or information sufficient to form a belief as to the allegations of the eighth paragraph, except that they admit that the plaintiff has manufactured spark plugs for various makes of gasoline motors and such plugs have been made for a number of years past in a large number of types, and that the variations between different types in many instances are slight, and that the firing end of the plugs is not visible when the plug is installed in an engine.

60 7. Deny that they possess any knowledge or information sufficient to form a belief as to the allegations of the ninth paragraph, except that they admit that the design of the electrodes and the width of the spark gap have some influence on the operation of the motor and that the gaps in Champion plugs vary in different types thereof.

8. Deny that they possess any knowledge or information sufficient to form a belief as to the allegations of the 10th paragraph, except that they admit the Champion spark plugs exhibit good quality of material and workmanship.

Answer.

9. Deny that they possess any knowledge or information sufficient to form a belief as to the allegations of the 11th paragraph, except that they admit that spark plugs lose their efficiency if the electrodes become worn and the insulators become fouled with carbon and other materials, and that plaintiff and some other spark plug manufacturers recommend the substitution of new spark plugs in automobiles every ten thousand miles of travel, and that sometimes car owners have their spark plugs changed at garages and service stations by the management thereof. 61

10. Deny that they possess any knowledge or information sufficient to form a belief as to the allegations of the twelfth paragraph, except that they admit that plaintiff's plugs have been and are extensively advertised and are of good quality and are marketed under the trademark Champion by the plaintiff, and have a recognized reputation throughout the United States and foreign countries. 62

11. Admit that without the consent of the plaintiff, the defendants Harry Sanders and Samuel Sanders have secured and are securing, and at one time the defendant Peter Sanders did secure, certain used Champion spark plugs manufactured by plaintiff, and reconditioned such plugs in accordance with standard processes to remove as much as possible the effects of wear and use and to permit such plugs to give further satisfactory service, and have sold the same, and defendants Harry Sanders and Samuel Sanders are selling the same, as used and reconditioned spark plugs, like any second hand, repaired article of commerce, but except as admitted, deny the allegations of the thirteenth paragraph. 63

Answer.

64 12. Admit that on some of its reconditioning work, the said defendants repair the electrodes and firing mechanism of the plugs, and after cleaning and reconditioning the said plug, give a portion of the metal thereof a coat of paint to improve its appearance, and stamp each plug with the word "renewed" in a color different than the background, and sell such reconditioned plugs, originally manufactured by the plaintiff or by other manufacturers, in the second hand market directly to large consumers and fleet owners and in some cases to distributors or dealers, as reconditioned spark plugs, and that such reconditioned plugs are uniformally advertised, represented
65 and sold by the plaintiff as used and reconditioned articles, and that such reconditioned plugs are sold by defendants in interstate commerce at prices substantially lower than the prices charged by plaintiffs for its new plugs, but except as admitted deny the allegations of the fourteenth paragraph.

13. Admit that said defendants, Samuel Sanders and Harry Sanders now have in their possession an inventory of spark plugs in various stages of reconditioning processing, and that some of such plugs were originally
66 manufactured by plaintiff, and that said defendants are looking for new business therein, but except as admitted, deny the allegations of the fifteenth paragraph.

14. Admit that the plaintiff has a different designation letter or number or both for its various types of plugs, and that the same is printed on its plugs, along with the word Champion, and that dealers are supplied with size charts in order to select the proper type of Champion plugs, for each different make or model of automobile, and such information is necessary to be on the

plug for the proper selection of such individualized spark plugs for the proper motor, but except as admitted, deny the allegations of the sixteenth paragraph. 67

15. Admit that defendant Harry Sanders and Samuel Sanders do, and that defendant Samuel Sanders did, sell said reconditioned spark plugs of plaintiff's original manufacture without removing plaintiff's trademark or type marks therefrom, and defendants Harry Sanders and Samuel Sanders do mark, and have marked, on the cartons and containers for said reconditioned spark plugs, the original make thereof and the type number, but except as admitted, deny the allegations of the seventeenth paragraph. 68

WHEREFORE, defendants demand that the complaint herein be dismissed, together with the costs and disbursements of this action.

JOHN WILSON HOOD,
Attorney for Defendants,
Office & P. O. Address,
261 Broadway,
Borough of Manhattan,
City of New York. 69

Note: The foregoing answer was amended at the trial as shown at folios 74 to 79 of the record.

Testimony.

70

UNITED STATES DISTRICT COURT,

EASTERN DISTRICT OF NEW YORK.

CHAMPION SPARK PLUG CO.,

Plaintiff,

vs.

PETER SANDERS, *et al.*, D.B.A. PERFECT RECONDITION SPARK PLUG CO.,

71

Defendants.

Brooklyn, New York,
March 28, 1945.

Before:—HON. MORTIMER W. BYERS,
U. S. D. J.

APPEARANCES:

WARD, CROSBY & NEAL, ESQS., by Joshua Ward, Esq. and

72 OWEN & OWEN, ESQS., by Wilber Owen, Esq. and Carl F. Schaffer, Esq., Attorneys for the Plaintiff.

JOHN WILSON HOOD, ESQ., Attorney for the Defendants.

The Court: Now, gentlemen, in the first place is it the fact that there is just one question to be tried and that is whether the Champion spark plug, as reconditioned by the defendants, ceases to be essentially a Champion spark plug. Is that the one issue?

Mr. Hood: No, your Honor, and to clarify that answer I might state that by agreement with counsel for the plaintiff, I am going to amend the answer to include three affirmative defenses, namely, laches, estoppel and license. 73

The Court: The granting of a license by the plaintiff to the defendant?

Mr. Hood: An implied license, your Honor.

The Court: All right, let us get the terms of the amendment in the record.

Now, the answer was filed, I think, on May 2, 1944?

Mr. Hood: Yes, your Honor.

The Court: How is it to be amended, by additional defenses. 74

Mr. Hood: By the addition of three paragraphs to the answer, containing three separate defenses.

For the first and separate defense, defendants allege—and this is paragraph 16—the plaintiff is the manufacturer and defendants are or were subsequent owners of Champion spark plugs and the plaintiff, prior to the bringing of this action, advised, urged and induced such subsequent owners, including the defendants, to clean, repair and recondition such spark plugs and the acts of the defendants complained of by the plaintiff consist of cleaning, repairing and reconditioning such spark plugs accordingly and the defendants, acting upon such advise of the plaintiff, have continued to engage in such reconditioning business and to invest money and incur obligations therein and the plaintiff is estopped to bring this action. 75

For a second and separate defense, defendants allege—and this is paragraph 17—the defendants, to the knowledge of plaintiff, have been engaged in the business of reconditioning Champion spark plugs for the past fifteen

76 years. As plaintiff, with full knowledge of its alleged rights, delayed bringing this suit until a lapse of said fifteen years and the defendants, in reliance upon such delay and acquiescence by plaintiff, have expended money for advertising and machinery and otherwise changed their position for the worse, plaintiff is barred by laches from bringing this suit.

For a third and separate defense, defendants allege —and this is paragraph 18—that the plaintiff's Champion spark plugs in normal use foul from carbon and other deposits and suffer wearing of the electrodes and require, as normal repairs during the service life of such plugs,
77 the restoration of the spark gap and the removal of such deposits. The functional part of defendants' reconditioning of said plugs consists of the restoration of said gap and the removal of said deposits and plaintiff, prior to the institution of this action, advised, authorized and licensed such subsequent owners, including the defendants, to conduct such normal repairs, including the repairs involved in defendants' reconditioning of said plugs.

Now, in addition to these defenses, my position is, your Honor, that——

78 The Court: Just a minute, please. What were the concluding words, including something——?

Mr. Hood: Including the repairs involved in defendants' reconditioning of said plugs.

The Court: Is that what you are calling an implied license?

Mr. Hood: Yes, your Honor.

The Court: Now, do I understand there is any objection to those amendments?

Mr. Schaffer: Mr. Owen, my associate, and Mr. Hood had a telephone conversation regarding these. My under-

standing of it is there is no objection to the defendants 79
pleading laches or estoppel. As I hear this read by Mr. Hood—I had not previously seen the form of the paragraphs which Mr. Hood has read—but it seems to me that they are highly argumentative and it is a question whether they state ultimate facts.

The Court: That may go to the legal sufficiency. I am asking now whether you object to the amendments to the answer at this time?

Mr. Schaffer: No, your Honor.

The Court: Then, without objection, the amendments are permitted.

Mr. Owen: With the understanding, of course, your 80
Honor, that we can get the correspondence regarding it. We have sent for it.

Mr. Ward: Will you produce your correspondence, Mr. Hood, regarding that question?

Mr. Hood: Whatever my people have.

* * * * *

The Court: Do you contest plaintiff's assertion that those selected plugs comprehended in that exhibit, that there was an essential change?

Mr. Hood: By us?

The Court: Yes. 81

Mr. Hood: Yes, I controvert that, an essential change, yes.

The Court: That is an issue, then, is it?

Mr. Hood: Yes, your Honor.

The Court: What else is in issue?

Mr. Hood: The fact, as I say, in this particular case, distinguishing it from the preceding cases in which this subject-matter has been involved, there is no confusion of goods between our reconditioned plugs and the new plugs.

82 The Court: You mean, no purchasers have been misled?

Mr. Hood: That's right, the competition is fair.

The Court: Are those the main issues?

Mr. Hood: I think so, your Honor.

The Court: All right, let us see what we can agree to that has been alleged in the complaint.

It is alleged in the third paragraph of the complaint that the jurisdiction of the Court as to the cause of action of trade mark infringement depends on the Trade Mark Laws of the United States.

Mr. Hood: I do not dispute the jurisdiction of the
83 Court.

The Court: The third paragraph of the answer left me a little bit in doubt. However, jurisdiction of the Court is agreed to, is that right?

Mr. Hood: Yes, your Honor.

The Court: I am unable to say, on reading, what it is you admit in paragraph four and what you deny. Suppose you tell me what you deny.

Mr. Hood: Well, paragraph four is probably true. There are some things in here we cannot be sure about. For instance, they say all they have been doing is making
84 spark plugs. I don't know whether that is so or not or whether it is material.

The Court: Is that the only matter you intend to put in issue by your fourth paragraph?

Mr. Hood: I don't think it is a material issue.

The Court: I didn't ask you that. I am trying to find out what the issues are that have to be tried here. Now, please——

Mr. Hood: Yes.

The Court: Is that the only matter in paragraph four that you intend to deny?

Mr. Hood: I will concede paragraph four is true. 85

The Court: Very good. Now, paragraph five, you deny knowledge and information sufficient to form a belief. That alleges registration of plaintiff's trade mark by the Champion Spark Plug Company of Massachusetts on April 25, 1913 and the issuance by the Patent Office of a certificate of registration, numbered 92950.

Now, do you put that paragraph in issue?

Mr. Hood: Yes, your Honor, because we don't know anything about that. I think they should establish that.

The Court: That is a documentary matter, isn't it?

Mr. Hood: That is true.

The Court: If you contest it—you have the right to, 86
of course—have you the certificate of registration here, Mr. Schaffer?

Mr. Schaffer: Yes, your Honor, it is already on file.

The Court: It is a public record, isn't it?

Mr. Schaffer: Yes, your Honor.

The Court: What is it that you question about it, Mr. Hood?

Mr. Hood: It is in all probability so, your Honor. We just don't know anything about it.

The Court: Well, do you deny it?

Mr. Hood: You mean, are we prepared to offer proof 87
that it is not so?—no, we are not.

The Court: Are you prepared to contest plaintiff's proof on that subject?

Mr. Hood: If they have proof, we are not prepared to contest it, no, sir.

The Court: Suppose you show Mr. Hood the certificate of registration, Mr. Schaffer?

Mr. Schaffer: Yes, your Honor (Counsel examining documents).

88 I might say that the period of registration or a renewal is twenty years.

Mr. Hood: Apparently it is authentic, your Honor.

The Court: Are you prepared to say now that you do not question the allegations of paragraph five as to the issuance of the registration of the trade mark and its renewal?

Mr. Hood: I think so, your Honor.

The Court: Its renewal, I suppose, covers the period April 12, 1944, when the complaint was filed.

Mr. Hood: Yes.

The Court: Now, what about the allegations of para-
89 graph six, namely, that a trade mark has been used by the plaintiff and its predecessors and by assignment of the certificate of registration #92950, it has become the sole and exclusive property of the plaintiff together with the goods and good will of the business of its predecessors, the Champion Spark Plug Company of Massachusetts and the Champion Spark Plug Company of Delaware, and that the assignments were recorded.

Mr. Hood: Naturally, your Honor, we don't know anything about it.

The Court: Suppose you find out about it now. These
90 are matters of public record that do not affect the issues in the case and on which I do not propose to waste time taking testimony.

What is your doubt on that subject?

Mr. Hood: As I say, we know nothing about these intercorporate transactions.

The Court: Do you question that the plaintiff is now the sole holder and owner of the trade mark and the certificate of registration?

Mr. Hood: The apparent owners.

The Court: I don't know what you mean by that.

Mr. Hood: I mean, so far as I know. We haven't 91
the absolute facts about it.

The Court: Do you propose to contest that question?

Mr. Hood: No, I have not prepared my defense on that basis.

The Court: Then, for the purpose of this trial, may it be deemed admitted?

Mr. Hood: It seems to me that is putting us in a rather unfair position.

The Court: I don't think so at all. This is, in fact, a pretrial. Now, if there is to be any contest over this, I am entitled to know about it. I do not see why there 92
should be but perhaps you know of some reason.

Mr. Hood: That is not an issue that I intend to raise but I do not know a thing about these intercorporate transactions here.

The Court: Then, for the purpose of this trial, is it agreed that the plaintiff is the owner of the trade mark and the certificate of registration?

Mr. Hood: We have seen a certified copy of the renewal to the Champion Spark Plug Company, that we know about, but we do not know about these preceding companies.

The Court: Well, suppose you just take a little time 93
and find out about them.

Mr. Schaffer: Your Honor, I have here a stipulation as to what the president of the Champion Spark Plug Company would testify to, were he called as a witness. In that stipulation there is reference to those assignments.

Mr. Hood: I will not dispute that they own the trade mark, your Honor.

Mr. Ward: I assume that Mr. Hood's statement includes also the registration of the trade mark.

94 The Court: That is established by the certificate, isn't it?

Mr. Hood: Yes, sir.

The Court: Now, paragraph seven of the complaint is fairly argumentative, isn't it? I think that the fifth paragraph of the answer probably contains admissions—the defendants admit that plaintiff's spark plugs have been extensively advertised and are generally recognized as being of good quality.

Mr. Hood: Yes, we concede that.

The Court: So that serves the purpose, doesn't it, so far as this trial is concerned?

95 Mr. Schaffer: We have some stipulated testimony with respect to figures on that, your Honor. I think perhaps it does except we would like to show at least the totals—some large quantity.

The Court: I imagine that won't take very much time.

Mr. Schaffer: No, your Honor.

The Court: Now, so far as paragraph eight is concerned, it may be that paragraph six of the answer will prove to be sufficient. I do not know that we can save very much time on that.

96 I suppose as to paragraph nine, the admissions of paragraph seven are about all that you can expect to get.

As to paragraph ten, I suppose the same remark applies, and also the same as to paragraph eleven.

The same, too, as to paragraph twelve.

I imagine that paragraph thirteen does not present any real issue of fact. I suppose it is going to be conceded that the defendant acquired these spark plugs of the plaintiff's manufacture which had been discarded. I do not suppose there is any issue about that at all.

Mr. Hood: That is quite true. 97

The Court: The concluding clause of paragraph thirteen, I understood to be the main issue in the case or that it presents the main issue in the case.

Paragraph fourteen really expands the allegations of paragraph thirteen, doesn't it?

Mr. Schaffer: Yes, your Honor.

The Court: Paragraph fifteen is a further expansion of the same essential cause of action as alleged by the plaintiff, is it not?

Mr. Schaffer: Yes, your Honor.

The Court: Paragraph sixteen is really a further expansion and paragraph seventeen is argumenative in 98
that it attributes a purpose to the defendant which I think they deny.

Mr. Hood: That's right.

The Court: Well, I guess we understand the issues now.

The plaintiff, I think, had better offer in evidence as Exhibit 1 those spark plugs that we were talking about. Haven't you forty or more spark plugs?

Mr. Schaffer: We have the forty right here, your Honor.

Your Honor, there was a rather involved procedure 99
in purchasing these plugs and getting them to the Champion engineer. We now have at least a partial stipulation that certain persons went to the defendant's place of business and purchased these spark plugs and sent them to Toledo. Unfortunately, your Honor, they went first to the vice-president of the company and from him to the engineer—we have a chain—and we have stated all of those facts in the affidavits and I am now asking counsel for the defendants whether he will stipulate that the forty plugs in question were purchased from the de-

100 fendant in New York and sent to plaintiff's engineer in Toledo for inspection and testing.

The Court: I do not think he denies that.

Mr. Hood: They are our plugs.

Mr. Schaffer: And they were acquired, purchased from the defendant—there is no question about that?

Mr. Hood: We are not prepared to dispute it.

The Court: And you are not prepared to dispute that they were purchased for or on behalf of the plaintiff and that they found their way to plaintiff's factory?

Mr. Hood: That's right.

The Court: Is that what you want, Mr. Schaffer?

101 Mr. Schaffer: Yes, your Honor.

The Court: All right, you had better offer them in evidence.

Mr. Schaffer: I offer in evidence four cartons of spark plugs, each carton containing ten individual plugs, purchased from the defendant and examined by the plaintiff's engineer.

I offer the plugs as Plaintiff's Exhibits 1, 2, 3 and 4.

The Court: Is that a separate number for each container?

Mr. Schaffer: Yes, your Honor.

102 The Court: I take it, there is no objection?

Mr. Hood: I have no basis for any objection, your Honor.

Mr. Schaffer: I would like further to identify the exhibits. I offer as Exhibit 1 a box of Champion H-10 plugs.

The Court: They are all number H-10?

Mr. Schaffer: Yes, your Honor.

(The above box of plugs received and marked, "Plaintiff's Exhibit 1".)

The Court: All right, what is number 2?

Mr. Schaffer: Number 2 is a box of ten Champion 103
#7 spark plugs, referring to the type number of the plug.

(The above box of plugs received and marked, "Plaintiff's Exhibit 2".)

Mr. Schaffer: Number 3 is a box of Champion #7 spark plugs.

The Court: Also #7?

Mr. Schaffer: Yes, your Honor.

(The above box of plugs received and marked, "Plaintiff's Exhibit 3".)

Mr. Schaffer: Number 4 is a box of ten Champion 104
spark plugs, type #7.

The Court: Also #7?

Mr. Schaffer: Yes, your Honor.

(The above box of plugs received and marked, "Plaintiff's Exhibit 4".)

Mr. Schaffer: May the Court please, my attention is called to the fact that in the box of H-10 plugs, Exhibit #1, there is contained a plug of the J-9 type.

The Court: Well, can it be identified? Does the container indicate which it is?

Mr. Schaffer: The identification appears only on the insulator of the plug. 105

Mr. Owen: The J-9 plug in this particular exhibit, Exhibit 1, the plug is marked A-8 by our engineer.

The Court: Never mind what it is marked, what is it?

Mr. Owen: It was a Champion J-9 plug.

The Court: There is one J-9 contained in Exhibit 1 and the rest are H-10's?

Mr. Schaffer: Yes, your Honor.

The Court: All right, are we ready for testimony?

106 Mr. Schaffer: May the Court please, we have stipulated the testimony of three witnesses which we would like at this time to offer and read into the record, if the Court so desires.

. . . . . .

The Court: I do not think you need to take up the time with that. If there is anything that has not been covered thus far, don't you think you can refer to that and then file your stipulation?

Mr. Schaffer: I think so.

. . . . . .

107 The Court: What is it you would like to refer to?

Mr. Schaffer: I have here a paragraph——

The Court: First, whose testimony is this, please?

Mr. Schaffer: This is the testimony of Robert A. Stranahan, president of the Champion Spark Plug Company, the plaintiff here.

. . . . . .

STIPULATION RE TESTIMONY OF ROBERT A. STRANAHAN.

It is hereby stipulated by the parties hereto, acting by their respective counsel, that if Robert A. Stranahan were called and sworn as a witness in this cause, he 108 would testify as follows:

I am President of Champion Spark Plug Company, plaintiff herein, and have occupied that office since the incorporation of the present company in 1938 and also occupied that office in plaintiff's predecessors, Champion Spark Plug Company of Massachusetts and Champion Spark Plug Company of Delaware, throughout their entire corporate existence.

I have at all times been in active charge of the business of plaintiff and its said predecessors and have been and am familiar with all branches of the spark plug industry. 109

Said companies and their predecessor, Champion Company of Massachusetts, have used the trade-mark "Champion" on spark plugs continuously and extensively during the past thirty-five years.

Said word "Champion" was registered as a trade-mark for spark plugs, being Certificate No. 92,950 dated April 12, 1913, by plaintiff's predecessor, Champion Spark Plug Company of Massachusetts, and was duly assigned to plaintiff's predecessor, Champion Spark Plug Company of Delaware, and by it to plaintiff as a part of the business of said companies, and was renewed by plaintiff's said predecessor, Champion Spark Plug Company of Delaware, on the 11th day of April, 1933. 110

The word Champion has been used as a trade mark by plaintiff and its predecessors in business on approximately one billion (1,000,000,000) spark plugs, which have been sold in this country and in all other civilized countries of the world. More than eight hundred million (800,000,000) of said spark plugs have been sold in this country alone during the past thirty-five (35) years. 111

For more than twenty-five years past Champion spark plugs have been used as factory equipment on many makes of automobiles, trucks and other motor driven vehicles, a total of more than two hundred and forty million (240,000,000) Champion spark plugs having been sold for such uses by plaintiff and its predecessors. The spark plugs so supplied never have been packed in cartons and the first acquaintance of the owner or user therewith always has been through seeing them in his motor.

Testimony.

112 In a large proportion of instances replacement spark plugs are sold on the reputations they have gained through actual use. Next in order of number come sales which result from advertisements of the manufacturer. All spark plugs look more or less alike and their merits depend on inherent qualities of the insulators, electrodes and other parts and the care and skill with which the parts are assembled, so that it is impossible even for an export to distinguish between a good spark plug and a poor one by means of inspection.

During my extensive association with the spark plug busines[illegible] I have seen no less than one hundred different
113 makes of spark plugs appear on the market under as many different trade marks and trade names, some of them products of considerable merit with prices as high or higher than ours and others of little or no merit and with prices substantially below ours, and with but few exceptions those plugs have disappeared after a few months, or a few years at the most. In my opinion, a large proportion of those failures were due to the fact that the plug was not known to the motoring public and the name thereon carried no significance.

Due to the high quality of materials and workman-
114 ship used in the manufacture of Champion spark plugs, their extensive use as factory equipment and the large sums spent in advertising them, plaintiff's plugs have long enjoyed and now enjoy a wide reputation as possessing a high degree of merit and excellence.

Plaintiff has built up the reputation for its Champion plugs by many years of strict attention to the quality of materials and workmanship used in their manufacture. The amounts of money we have expended for research, engineering and experimental work in connection with Champion spark plugs are set forth in the testimony

of our secretary, Mr. Speyer, in this case, and run into many millions of dollars. 115

Different makes of motors require slightly different types of spark plugs in order to enable them to give efficient service. Plaintiff and its predecessors have long advertised that——

> "There is a Champion Spark Plug especially designed and made for every engine."

In order to fulfill this requirement plaintiff now manufactures and sells more than seventy (70) different variations of its Champion plugs. It has been plaintiff's constant endeavor at all times to keep the number of 116
different types of its plugs down to a minimum by making one type of plug suitable for use in a number of different makes of motors. It is a matter of economy in manufacture to keep the number of types as low as possible.

Only slight changes in the dimensions in the firing ends of the plugs distinguish one type of Champion plugs from another type number, but these slight differences have been found from long experience to be necessary in order to make good our statement that there is a Champion spark plug especially designed and made 117
for every engine.

We have learned from experience that a change of 1/16th of an inch, more or less, in one of the critical dimensions in the firing end of a Champion plug often unfits such plug for the most efficient service in the motors for which it was originally recommended, even when the plug is new.

Plaintiff is constantly improving its product. Substantial improvements have been made in the form of the cores as well as in the material of the cores.

* * * * *

118 The Court: All right; he would so testify?

Mr. Hood: Yes, sir.

Mr. Schaffer: Now, the next witness whose testimony has been stipulated is that of Charles L. Corwin, and his title is Sales Manager of the plaintiff company.

* * * * *

STIPULATION RE TESTIMONY OF CHARLES L. CORWIN.

It is hereby stipulated by the parties hereto, acting by their respective counsel, that if Charles L. Corwin were called and sworn as a witness in this cause, he would
119 testify as follows:

I am Sales Manager for Champion Spark Plug Company, plaintiff herein. During my entire connection with the plaintiff and its predecessors it has been their custom to pack each spark plug which is to be sold for replacement purposes in a carton bearing the name Champion, and to pack ten of these cartons, each containing a plug, in a container. On the ends of each of these cartons and containers the size and type number of the plug or plugs contained therein are designated, as appears from one of plaintiff's cartons offered as Plain-
120 tiff's Exhibit 6, and from one of plaintiff's containers offered as Plaintiff's Exhibit 7.

It also has been the custom during my said employment to distribute to jobbers, dealers, garagemen and all others handling Champion spark plugs, what we designate as "Size Charts", one of which is offered as Plaintiff's Exhibit 19A. Many millions of similar charts have been distributed. They are used by those handling plaintiff's plugs in ascertaining the type of Champion plug which we recommend for each make and type of automobile. When a customer asks for a spark plug,

the clerk who waits on him usually inquires the type 121
of car and the year it was made, and unless he knows the type of plug required he turns to one of these charts for the information. It is for this reason that the type number of each Champion plug is prominently printed on the insulator of the plug and also on the carton and container therefor.

Dealers who carry Champion plugs in stock usually place the containers on their shelves so that the ends are exposed to view, and on these ends appear the name Champion and the size and type number of the plug. On the sides of the containers and cartons the name 122
Champion also appears. Customers purchasing plugs over the counter thus may have an opportunity to see the markings on the containers and cartons when they make their purchases.

Plaintiff has long recognized that when spark plugs have been subjected to long or hard usage frequently their operation may be improved by appropriate cleaning operations, the removal of the burned and pitted portions of the center electrodes and readjustment of the side electrodes to provide proper gap spacing. Car owners have been encouraged by plaintiff to have their spark plugs examined, cleaned and tested from time to 123
time, and plaintiff has made spark plug cleaning and testing equipment available at reasonable prices to garages, service stations and others, as appears from statements in some of plaintiff's advertisements offered as Plaintiff's Exhibits 19, 19A and 19B. Other leading spark plug manufacturers have supplied similar equipment, with the result that a large percentage of all garages and service stations throughout the country are equipped with facilities for cleaning off carbon and grease deposits by sandblasting, for removing the burned portions of

124 electrodes, for adjusting the spark gap and for testing the spark. It is common practice for garages and service stations to perform this service for car owners without charge and even when a charge is made it does not exceed five cents per plug. In such a transactions the car owner knows that he is getting his old plugs back and has no reason to find fault with their performance or criticize the plug manufacturer if they do not give efficient service.

During the period of my connection with the plaintiff and its predecessors I have known of a large number of makes and brands of spark plugs which have appeared on the market for short periods and then have disap-
125 peared without having made any impression. This experience convinces me that no manufacturer of spark plugs can sell them in quantities sufficient to make a profit on the business without spending large sums of money in advertising and this without regard to the merits of the plugs themselves. All spark plugs look more or less alike and usually they are sold on the reputation which is connected with the name appearing on them. Such reputation may be gained in only two ways—either by extensive advertising or through extensive satisfactory use of the plugs by motorists. The reputation of Champion
126 plugs has been gained in both these ways.

* * * * *

For many years plaintiff has published a guarantee in connection with Champion plugs and has replaced any defective Champion plugs free of charge.

* * * * *

Since the fall of 1935 and up to January 1, 1942, the price of Champion plugs to plaintiff's distributors, for use in automobiles was thirty-one (31¢) cents each and since then has been thirty-three (33¢) each. The price

schedule under which distributors resold Champion spark plugs to wholesalers and dealers during the period 1935 to January 1, 1942, was as follows: 127

32½¢ each to wholesalers purchasing approximately 10,000 plugs a year.

34¢ each to wholesalers purchasing approximately 5,000 plugs a year.

37¢ each to dealers purchasing approximately 1,000 plugs a year.

41¢ each to dealers purchasing in boxes of 10 plugs.

45¢ each to dealers purchasing broken packages of less than 10 plugs. 128

Since January 1, 1942, the prices of Champion plugs to wholesalers and dealers have been advanced proportionately to the advance in distributors prices.

The retail list price which plaintiff recommended be charged to the public for all types and sizes of Champion plugs for automobiles was sixty-five cents (65¢) each for a number of years prior to January 1, 1942, and since then it has been seventy cents (70¢) each.

In my capacity as Sales Manager for plaintiff I received from various sources, including jobbers and dealers in spark plugs as well as our own sales representatives, 129 examples of the advertising literature put out by other spark plug manufacturers and by reconditioners of Champion spark plugs. Included in such advertising matter which has come to my desk in the regular course of business during the past three or four years there have been numerous advertisements of Standard Parts of 3033 Main Street, Kansas City, Missouri. Examples of some of these advertisements, of which a number of copies were received by me from points in different states, were attached to my affidavits in this cause dated May 31, 1944, and marked Corwin Exhibits A, B, C, D

130 and E. The circulars marked Exhibits A and B came to my desk during the years 1942 and 1943, that marked Exhibit C came to my desk during 1943. The "Passenger Car Chart" marked Exhibit E came to my desk along with other advertising literature of Standard Parts of Kansas City, Missouri.

* * * * *

The Court: All right, it is stipulated that he would so testify, if called?

Mr. Hood: Yes.

* * * * *

131 Mr. Schaffer: I would like now to refer to a few totals in dollars from the stipulated testimony of Mr. Howard B. Speyer, Secretary of the plaintiff company.

* * * * *

STIPULATION RE TESTIMONY OF HOWARD B. SPEYER.

It is hereby stipulated by the parties hereto, acting by their respective counsel, that if Howard B. Speyer were called and sworn as a witness in this cause, he would testify as follows:

132 I am Secretary of Champion Spark Plug Company, plaintiff herein, and for more than nineteen years past have been in the employ of said company and its predecessors at their office in Toledo, Ohio, during which period I have had supervision of and have been and am familiar with the books and records of said companies, and with the books and records of Champion Porcelain Company, of Detroit, Michigan, which for more than ten years prior to December 31, 1932, was a wholly owned subsidiary of plaintiff's predecessor and which since said date has been operated as the Ceramic Division of Champion Spark Plug Company. Prior to the incorporation

of Champion Porcelain Company, said business was con- 133
ducted under the name Jeffery-Dewitt Company.

Total Plug Sales, Including Equipment Sales.

The following is a correct statement of sales by plaintiff and its predecessors of spark plugs bearing the trade mark Champion from June 1, 1910, to December 31, 1940. Sales of spark plugs for each of the years 1941 to 1943, exceeded by a substantial amount the number sold by plaintiff during any previous year. Figures, for these years are not shown because of the necessity of secrecy as to production figures during the existing emergency. 134

To June 30	*Total Plugs*
1910-1911	221,879
1911-1912	615,826
1912-1913	1,415,066
1913-1914	2,426,328
1914-1915	4,756,887
1915-1916	7,926,179
1916-1917	15,319,803
1917-1918	24,621,135
1918-1919	14,412,884
1919-1920	25,927,922
1920-1921	13,238,640
1921-1922	14,304,868
1922-1923	24,151,393
1923-1924	29,399,004
1924-1925	32,270,190
1925-1926	34,878,251
1926-1927	30,309,502
1927-1928	31,412,535
1928-1929	43,605,893
1929-1930	37,897,271
1930-1931	29,905,582

135

136	*July 1 to Dec. 31, 1931*	13,288,615
	Year	
	1932	21,815,765
	1933	23,475,599
	1934	30,969,178
	1935	36,431,844
	1936	48,061,433
	1937	52,815,080
	1938	43,098,978
	1939	50,167,372
	1940	52,276,696
137		791,417,598

Plaintiff's spark plugs on which the trade mark "Champion" is used are sold in every civilized country in the world. During the past ten years such foreign sales by the Toledo company have averaged more than two and one-half million plugs a year, and a still larger number of foreign sales have been made by plaintiff's wholly owned subsidiary, Champion Spark Plug Company, of Windsor, Ontario.

138 *Advertising Expenses.*

The advertising expenditures made by Champion Spark Plug Company and its predecessors in connection with its Champion spark plugs from August 1, 1910, to December 31, 1942 amounted to a total of $19,621,577.11.

* * * * *

The foregoing figures represent the direct advertising expenditures of plaintiff and its predecessors in business and do not include any advertising expenses of plaintiff's wholly owned subsidiary, Champion Spark

Plug Company, of Windsor, Ontario, which conducts a 139
substantial part of the foreign sales of Champion plugs.

Experimental Expense.

Prior to 1920 no segregation of engineering and experimental expenses was made by plaintiff in connection with the improvement of its product in its own plant. For the years 1920-1942, inclusive the cost of plaintiff's Engineering Department and of such other experimental work as could be recorded upon plaintiff's books was $1,401,000.00.

* * * * * 140

Experimental, Research and Laboratory Work of Jeffery-Dewitt Company, Champion Porcelain Company and Ceramic Division of Plaintiff.

The research, experimental and laboratory work carried on by said Jeffery-Dewitt Company, Champion Porcelain Company and Ceramic Division of Champion Spark Plug Company, covering the period from October 1, 1914, to December 31, 1942 inclusive, taken from the books and records of said companies shows a total expenditure of $3,703,975.71.

* * * * * 141

Substantially all of said expenditures were incurred in connection with the development of new bodies for spark plug insulators, which was practically the only kind of insulators manufactured and sold by said companies during the period covered by the foregoing statement. These spark plug insulators were made exclusively for and sold only to plaintiff and its predecessors during the period prior to December 31, 1932, since which date the

142 Champion Porcelain Company has been operated as the Ceramic Division of plaintiff and its predecessor.

* * * * * *

Mr. Schaffer: One additional point, your Honor, on the purchase of spark plugs from the defendant which were tested by the plaintiff.

Mr. Hood: Defendants admit their sale of the four boxes of plugs Exhibits 1, 2, 3, and 4, to four different persons between the dates November 12 and November 18, 1943, and that they were delivered to plaintiff's witness Sibley in the same condition in which they were
143 sold by defendants.

* * * * *

Mr. Schaffer: I now offer in evidence a new Champion spark plug, type number 7, filed by the plaintiff with the Clerk of the Court heretofore.

* * * * *

(The above type #7 plug received and marked, "Plaintiff's Exhibit 5".)

Mr. Schaffer: I now offer in evidence the carton in which the new Champion spark plug is packed. That also was filed with the complaint.

144

* * * * *

(The above carton received and marked, "Plaintiff's Exhibit 6".)

Mr. Schaffer: I now offer in evidence the container in which ten new Champion cartons are placed. That also was filed with the complaint.

The Court: I take it there is no objection.

Mr. Hood: No objection.

(The above container received and marked, "Plaintiff's Exhibit 7".)

Mr. Ward: That was Exhibit number 3 of the bill 145
of complaint, your Honor.

Mr. Schaffer: May it please the Court, I assume, in view of our stipulation, that it will be unnecessary to offer plaintiff's certificate of registration and renewal.

The Court: I think so. I think it is agreed that plaintiff owns the trade mark and certificate of registration, that it has been produced and examined by the defendant and that there is no issue about it. I think that is agreed?

Mr. Hood: That is correct, your Honor.

The Court: Very well. 146

BERNARD F. GRANT, called as a witness on behalf of the plaintiff, was first duly sworn and testified as follows:

Direct Examination by Mr. Schaffer:

Q. Mr. Grant, where do you reside? A. Number 12 Breton Road, Yonkers, New York.

Q. What is your occupation? A. I am a field service engineer and parts salesman for the Durham Company at #17 West 60th Street, New York City. 147

Q. And what is the relative size and standing of the Durham Company in the industry? A. One of the largest distributors in the United States.

Q. Of what? A. Automobile parts and accessories and service work.

Q. Prior to your present position, did you have any other position with the Durham Company, of another title? A. Yes, I was automotive electrician, foreman and service manager before I went on the outside covering field service work.

148 Q. How long have you been with that company? A. Eighteen years.

Q. I will first refer to your experience as service manager of the company. A. Yes, sir.

Q. Does that bring you in contact with automobiles? A. Yes.

Q. Automobiles of the general public driven by car owners? A. Yes, it does, directly.

Q. In a general way, what is the nature of your work when a car is brought into your service station? A. When a car is brought into our service station, I greet the customer and I find out the reasons for his bringing
149 the car in and naturally, of his complaint and then we ascertain what the trouble was, the nature of the trouble by a method of motor testing equipment which, of course, consisted of all modern testing equipment available and we attempted to sell the customer and invariably did, a complete motor diagnosis and analysis to determine definitely what the condition of the customer's complaint was and the results necessary to obtain to correct them.

Q. Now, this brings us to the question of spark plugs. Did you also have occasion to examine spark plugs in customers' cars? A. Yes, sir, I did.

150 Q. In a general way, what was the nature of that examination? A. Well, of course, in every instance we had to remove the spark plugs and the first thing we did was give them a visual examination. This was to determine whether or not the plug should be replaced to give the man the best performance for his motor or whether or not they could be cleaned and adjusted and replaced and give him satisfactory further mileage.

If we found that the plug could be cleaned and replaced, and we could guarantee the job, we did so. Otherwise, we attempted and invariably did sell the customer new plugs and of course, we junked the old ones.

Q. What did you do with these old plugs that you junked? A. Well, we had a waste barrel filled with all sorts of junked material which we discarded and we placed them in the waste barrel. 151

Q. Does that description also include your handling of Champion spark plugs? A. Yes, sir, all makes.

Q. Which plugs did you sell? A. We sell Champion and Auto-Lite.

Q. What are the three leading brands or considered to be the three leading brands of spark plugs? A. I would say Auto-Lite, Champion and AC.

Q. What are some of the common defects found in Champion plugs which are discarded? A. Well, we find in most cases that the electrodes are burned beyond ability to use the plug over again to a satisfactory measure, or we find the electrodes worn away and especially when the center electrode is worn down or deteriorated to a great extent and also where the skirt of the porcelain is burned away, or the upper portion of the porcelain may be cracked. 152

Q. Now, what do you mean by the skirt of the porcelain? A. Well, the skirt is that portion of the porcelain which carries the center electrode and on the bottom part, which comes out of the shell—I always called it a skirt. 153

Q. Have you also heard it referred to as a semi-petticoat? A. Yes, I believe I have.

Q. What about the heat range of Champion spark plugs, are you acquainted with that subject? A. Yes, I am a little.

Q. Did you also examine Champion spark plugs to determine the heat range? A. Oh, yes, we do.

Q. What have you to say about that condition as affecting your decision as to whether or not a plug should

154 be replaced in the engine of the car? A. Of course, we always use the factory specification for each car that comes in. We check the factory specification chart to determine what plug belongs in a motor and if we find that the plug in the motor is not of that particular heat range, we examine the plug very carefully to determine whether it is too cold or too hot and that is easily recognized by an examination of the plug. In a few instances, where the car may be old or needs a different heat range, we recommend it and insert that plug for proper performance of his car.

155 Q. Does the condition of the insulator or the porcelain of the Champion spark plug affect the heat range? A. Oh, yes, it does.

Q. Can you explain that? A. Well, the heat range of a spark plug is determined by the amount of travel the heat has to travel in order to be dissipated from the plug and of course, that is determined by the relative lengths of the porcelain.

When the porcelain is burned away and it is short, it automatically changes the heat range of the plug.

Q. Can you tell us whether that makes a hotter or colder plug, if you shorten the porcelain? A. If you

156 shorten the porcelain you make it a colder plug because the heat has a shorter distance to travel in order to be dissipated.

Q. How many spark plugs can you estimate are sold to motorists in your service station by means of installation in the engines of the cars? A. My records show, and also if my memory serves me, we sell on an average of six thousand a year. That means retail sales, inserting them in motor cars that come into our service station.

Q. Does the car owner see the carton in which the spark plugs are contained when they are sold at your

service station? A. Invariably I would say no because —a large percentage of the customers leave their cars with us and I either contact them by 'phone and tell them what they need, or by letter, and of course we do the work while the customer is away so that when he comes back for his car, the plugs are already inserted. In a few instances, where it is a hurry job and the customer hasn't the time to leave his car, he may see the boxes in which the plugs come, in a case of that kind, but that is very seldom. 157

Q. What does the customer see with reference to the spark plugs, after they have been installed in the engine of the automobile? A. Naturally, the customer, when he comes for his car, he wants to be shown just what you have done, in lots of cases, so you raise the hood and you start showing him the new wires or the new coil or whatever you have done and in spark plugs, you can see the tops of the porcelains and he can see the name on the porcelain and the type number or whatever he wants to see. That is the only way he has of identifying the plug. 158

Q. But not the firing end of the plug? A. No.

Q. Does the Durham Company sell any reconditioned, so-called, or rebuilt spark plugs? A. No, sir. 159

Q. Do you have any calls or any demands for such a product? A. Never had any.

Q. Can't you recall a single instance? A. I cannot recall a single one, no, sir.

Q. What do you furnish when a customer asks for a Champion spark plug? A. If the customer asks for a Champion spark plug, we will give it to him.

Q. Do you ask him whether he wants a new or a rebuilt plug? A. No, we take it for granted that he wants a new plug.

160 Q. Now, what is the retail price of the three leading brands of spark plugs you have referred to? A. The Champion is 70¢, the AC and the Auto-Lite are 65¢.

Q. I would like to direct your attention to Plaintiff's Exhibits 1 and 2, which are cartons containing certain spark plugs. I will ask you to select one plug from each of those boxes so that you can refer to them (handing witness cartons)? A. Yes, sir.

Q. Will you please tell us the identification numbers on the two plugs you are now holding in your hand? A. This one is a number seven Champion (indicating) and it is taken from Exhibit 2, and this is a number H-10
161 Champion, taken from Exhibit 1 (indicating).

Q. What identification number is stamped on the hex of the number seven plug? A. B-4.

Q. And what identification number is stamped on the hex of the H-10 plug? A. It looks like A-6.

Q. Now, will you please look at the firing ends of those two plugs and state what your action would be if they were taken out of an automobile which had been driven into your service station? A. In the first place, upon removing the plug and examining it, from visual examination——

162

Mr. Hood: I object to this question as hypothetical, your Honor.

The Court: I do not think the fact that it is hypothetical is a sound objection. It strikes me as being a pretty practical piece of testimony. I think the witness is being asked what he sees in that plug or what he fails to see—I think that is the purpose of the question.

Mr. Hood: But that is not the form of the question, your Honor.

The Court: I realize that, I am telling you what I think it means—am I right in that or wrong, Mr. Schaffer? 163

Mr. Schaffer: I will ask the question in that way, your Honor.

Q. Will you please state what you see or fail to see in those two plugs that we have just identified?

The Court: (To witness) Take one at a time.

The Witness: The B-4, my visual examination would show that it was a re-altered plug or a reconditioned plug due to the fact that the outer electrode has been removed and another one installed. 164

The Court: Which electrode?

The Witness: The outer electrode. Originally, the outer electrode is here—the original outer electrode has been removed and a new one inserted or installed and I also notice that the skirt of the porcelain has been taken away to a large extent, removed.

Now, I would not know whether it was from use or by some other means. 165

Q. But it is not there? A. It is not here.

Q. Now, the other plug? A. On the H-10, the outer electrode has also been removed and a new one inserted and the skirt of the porcelain on this plug is completely removed.

Q. Have you ever removed and examined, from your customers' cars, spark plugs in somewhat similar condition, generally speaking? A. Yes, I have.

Q. What has been your recommendation to customers in those instances?

166 Mr. Hood: I object to that as immaterial and not binding on the defendant, your Honor.

The Court: I will allow this witness to testify as to his practical experience on the replacement of spark plugs.

The Witness: I would recommend replacing these plugs with new plugs because I could assure the customer of a better performing engine and therefore, better economy.

Q. And what would you do with the two plugs which you are holding in your hand? A. I would destroy them
167 and throw them in the junk barrel.

Q. You have referred to the so-called skirt of the insulator of the Champion plug. Do you know whether a similar feature is found in other makes of spark plugs? A. Oh, yes, on both Auto-Lite and AC.

Q. And the Champion? A. And the Champion.

Q. Do you know the function of the skirt of the insulator? A. Well, I know that it has to be there for a good reason and the only reason I know of is that it allows the outer edge of the skirt to retain the excessive heat which will retard and eliminate the deposit of soot
168 or fats around the bottom part of the porcelain, thereby giving it a longer life and better firing facilities. That is the only reason I know for it to be in there.

The Court: I would like to have that answer read.

(Above answer read by reporter.)

The Witness: By fats, your Honor, I mean oil deposits.

Q. Can you explain very briefly what hot and cold spark plugs mean—just what that term means as applied

to spark plugs? A. Well, when a motor is running in 169
the higher temperatures and especially in these modern engines, where we have high compression, you have to be sure that you have the correct heat range for that particular motor.

In other words, if you have too hot a plug in a hot engine, it will pre-ignite the gas and you will get a ping or a motor knock and by going to a cooler range and determining which is the correct one for the engine, by your specifications or, if the motor is old, by observing the plug that you remove, you can give the customer better service and better economy.

In the case of a cold engine—you have colder motors 170
which require a hotter plug and if you put a cold plug in a hot engine, you will naturally get poor results from the engine, spitting and backfiring and things of that nature which will cause poor ignition and therefore naturally poor mileage and poor economy.

Q. Are you familiar with the term "balancing of a set of spark plugs"? A. I would take it to mean that it means a set of one type of plug throughout the motor. That means that you would not want two different heat ranges in the same engine, you would want them all of the same type and of the same make, so as to have each 171
cylinder giving the best performance and only a certain spark plug should be used in that particular engine to give a balanced performance.

Q. Do you consider that to be of any importance? A. Oh, yes, I do.

Q. Making for better engine operation? A. Better engine operation, yes.

Q. You are, of course, familiar with the general appearance of Auto-Lite, Champion and AC plugs? A. Yes.

172 Q. I will ask you whether or not you depend on the trade marks or the type markings—the trade markings on the insulators of those plugs in order to identify them? A. To be honest with you, I do, because it is a lot easier. I could tell most times, an Auto-Lite, a Champion, and an AC, because I have handled so many of them but it is a lot easier to just look at the name and in that way determine what plug it is.

Q. What does the word "Champion" on a spark plug, offered for resale as a replacement plug, mean to you with respect to the condition of that spark plug? A. I don't believe I understand that question.

173 Q. (Question repeated.) A. Well, the name "Champion" on a spark plug offered for sale to me means that you are offering a customer a new plug and one of the best plugs that can be put into his motor.

Mr. Hood: Your Honor, I object to that as argumentative, an opinion and conclusion of the witness and not binding on the defendant.

The Court: I think your objection probably goes to the weight of the testimony. I think the witness' experience in this business entitles him to say

174 what he understands the trade-mark to mean when it appears on a reconditioned article.

(To witness): That is what you are testifying about, isn't it?

The Witness: May I have the question again, please, your Honor?

(Last question read by the reporter.)

The Court: You are speaking now of a new plug, Mr. Schaffer?

Mr. Schaffer: I was not discriminating, I was asking him what the word meant when he saw it on the insulator of a Champion plug when it

was offered for resale to the public, with respect 175
to the condition of the plug.

The Court: Are you going to ask him to say that if he holds in his hand a plug as to which the skirt, for instance, has been in part destroyed or, as in one instance here, entirely destroyed, what the word "Champion" means in connection with such a plug? Are you going to ask him to close his eyes?

If I understand this witness, he is going to tell you that he knows the difference between a new plug and one that is not new and that the name 176
appearing on the one that is not new would not fool him.

The Witness: That's right.

The Court: I think that is the common sense of it, don't you?

Mr. Schaffer: Yes, sir.

The Court: All right.

Mr. Schaffer: But I was getting to a little different point about it, your Honor.

The Court: I will overrule the objection.

Mr. Hood: Exception.

The Court: (To witness) Now, will you answer 177
the question?

The Witness: I answered it.

(Previous answer of the witness read by reporter.)

Q. What does the Champion type number on a Champion spark plug offered for resale as a replacement plug mean to you with respect to the condition of that spark plug? A. Well, the type number of the plug——

178 Mr. Hood: I object to that, your Honor.

The Court: Objection overruled.

Mr. Hood: Exception.

The Witness: The type number of the plug naturally has a big bearing on it because it signifies the heat range of the plug and you would thereby know whether or not it was the proper plug for that particular installation, by looking up the specifications for the motor.

The Court: As from the chart, is that right?

The Witness: Yes, sir.

179 Q. Does the type number signify anything in addition to the heat range of the plug? A. Yes, it does, it also tells you what size it is, whether 18 mm. or 14 mm.

Q. How about the design of the plug? A. It also would tell you the type and design of the plug relative to the porcelain and also what type of shell it would have on it.

Q. At least you would know that is the design of plug recommended by the manufacturer for that particular motor, is that it? A. That is right.

Q. Has your experience been such that you can express any opinion as to whether there is any general knowledge on the part of motorists that used discarded spark plugs, bearing the Champion trade mark, are sold and installed as replacement plugs?

180

Mr. Hood: I object to that question.

The Court: I think you would have to lay a foundation by asking the witness whether he has had any experience with those who purchased and used these so-called reconditioned plugs.

Mr. Schaffer: From my previous conversation with the witness, your Honor, I am unable to lay that foundation.

The Court: Then you should not be asking the question. 181

Mr. Schaffer: Of course, the purpose of my question is to elicit from the witness an opinion as to whether there is such knowledge from his extensive experience with motorists, that is, any opinion he has as to whether or not the general motorist, the general average car owner is aware of the practice of reconditioning and putting spark plugs back on the market or aware of the fact that there is such a thing as a reconditioned plug.

The Court: Don't you think you had better ask him whether he has ever discussed that subject with motorists? 182

Mr. Schaffer: I will do so, your Honor.

Q. Have you ever discussed with motorists the question of reconditioned Champion spark plugs? A. Well, I have indirectly. Directly, I haven't, because we do not sell reconditioned spark plugs.

Mr. Hood: I object to that answer, your Honor, it is not responsive.

The Court: (To witness) I am a little bit interested in knowing how you can discuss something indirectly. 183

The Witness: Well, I mean by that, your Honor, it is not invariably the case with each customer. It only happens on very few occasions where we found customers to have reconditioned plugs in their motor and then we go into detail why they should not use them.

The Court: Have such instances occurred?

The Witness: Yes, they have.

184 The Court: Can you say whether that has happened very many times?

The Witness: I would not say it has happened very many times.

The Court: And under those circumstances, have you discussed with those customers this general subject of reconditioning?

The Witness: Yes, I have.

Mr. Hood: Your Honor, may I object not only on the ground that the discussions are hearsay but also on the ground that any transactions that these customers may have had with other reconditioners are not binding on the defendant, or indicative in any way of the results of the defendants' reconditioning.

185

The Court: I certainly agree that conversations of this kind cannot be received in evidence as against the defendant with respect to what the defendant does to plug, in the absence of proof.

I agree to that. I do not think that is counsel's purpose. I think he would like to elicit a kind of general opinion or impression with regard to these so-called reconditioned plugs.

186 Mr. Hood: Our particular plugs are sold as reconditioned plugs, so packed and so advertised, since the Federal Trade Commission proceeding and have been marked with the prefix "ex".

Now, it may well be there are other reconditioners who are not so conscientious and make these plugs look like new plugs and they may have been imposed on some of his customers and it would not be fair to have him testify as to transactions with those customers, with the implication that we are responsible.

The Court: If I receive it, it will be only in a general way and not with any specific reference to defendants' practices and products. 187

Mr. Hood: I think as long as your Honor is conscious of the fact that it is in no way indicative of defendants' activities——

The Court: Oh, it cannot be held as binding on the defendant with reference to what the defendant does. If there is a general impression about these reconditioned spark plugs, it might be helpful to know what that general impression is.

Mr. Hood: His testimony indicates only a few isolated instances. 188

The Court: I do not think the whole subject is very helpful. If people want to buy reconditioned plugs, they will buy them.

Mr. Schaffer: If I may say so, your Honor, the point we make is with the trade mark on the insulator of the plug, they don't know that the plugs are so-called reconditioned plugs and furthermore that the deception is so easy because the general public is not aware of the fact that such an article is offered for sale.

Mr. Hood: We have done everything that the Federal Trade Commission requires. 189

The Court: I think I understand the theory. I will allow the evidence in simply because the Circuit Court of Appeals admonishes us all the time to let everything in.

Now, go right down to the question of whether he discussed reconditioned plugs.

Mr. Schaffer: Thank you, your Honor.

190 *By Mr. Schaffer:*

Q. Have you discussed the question of reconditioned plugs with motorists? A. Yes, I have.

Q. What did you learn from those discussions with respect to reconditioned plugs? A. Well, it has been my experience in the service field that there are very, very few customers who have come into my service station who have known there was such a thing as a rebuilt or reconditioned spark plug on the market.

They have all more or less asked, when they needed new plugs, they have asked us for new plugs, not re-
191 built, and when I have spoken to them about rebuilt plugs, they have, in each instance, thought I meant removing the plugs and cleaning them and putting them back. That is what they thought I meant by reconditioning plugs—taking their own plugs out and cleaning them and putting them back when it was possible and advisable.

Q. Mr. Grant, do I understand your last testimony correctly, that you have examined automobiles which had reconditioned plugs in them? A. Yes, sir.

Q. And that you have discussed that question with the motorists? A. Yes, in the cases where I found re-
192 conditioned plugs in the car, I have discussed it with the customer and advised him to put in a new set in order to get better efficiency for his motor, and I explained why.

Mr. Hood: I object to that question, your Honor, on the ground that there is no proof that these reconditioned plugs had anything to do with us. They may have been very inferior.

The Court: The evidence will be received upon the distinct understanding that it is not offered as against the defendants in this case.

Mr. Schaffer: Only on the general subject of 193
reconditioned plugs.

The Court: Yes. I am speaking of the defendants' practice in reconditioning and his practice in marketing.

By Mr. Schaffer:

Q. In your discussions with customers in whose cars you found reconditioned plugs, were they aware of the fact that such plugs had been reconditioned?

The Court: Please, you are going into mind 194
reading now.

Mr. Schaffer: I will withdraw the question.

Q. What were your discussions with customers about those plugs? A. Well, in each case I would take the plugs and point out to the customer where they had been altered from their original state by the insertion of an extra outside electrode and where the porcelain had been worn away beyond the extent that it would be automatically reclassified in a different heat range. I pointed out to him by installing a new set of plugs at the proper heat range, that he would have better per- 195
formance and thereby better economy.

Mr. Schaffer: That is all.

Cross-Examination by Mr. Hood:

Q. As I understand it, did you say you are still in charge of the service station? A. No, sir.

Q. How long has it been since you were in charge of the service station? A. Five years, approximately.

196 Q. And these conditions to which you have testified are conditions of five years or more ago? A. That's right.

Q. Where was this service station located? A. No. 17 West 60th Street, New York City.

Q. What type of customers did you have, passenger car owners? A. Passenger car owners, taxi-cabs and small trucks and also large trucks and some busses.

Q. What was your relationship, if any, to the plaintiff at that time?

197 The Court: Do you mean the Champion Company?

Mr. Nood: Yes.

The Witness: They are no relation of mine.

Q. I mean, business relations. A. Well, we handled the Champion spark plug.

Q. And who were you personally acquainted with in the plaintiff organization at that time? A. With a Mr. Kaplan, their field representative.

Q. What is your business relation with the Champion Spark Plug Company at the present time? A. We still handle and sell their spark plugs.

198 Q. In a large volume? A. A large volume, yes, sir.

Q. And at favorable discounts? A. Yes, sir.

Q. How did you learn that this lawsuit was going on? A. Through Mr. Schaffer.

Q. How long ago did you learn that? A. Approximately three weeks, I should say.

Q. And Mr. Schaffer, of course, discussed your testifying in this proceeding? A. He did.

Q. Did Mr. Schaffer show you or read to you a list of questions at any time prior to this trial, that he wanted

to ask you on this trial? A. No, he did not show me any 199
list of questions, no, sir.

Q. This testimony you gave about the functioning of the petticoat was given after you had discussed that function with Mr. Schaffer and the Champion Spark Plug Company employees, is that true? A. No, that has been a well known fact for a good long period in my experience.

Q. You acquired that information prior to talking to Mr. Schaffer? A. Yes, that is why I mentioned in there that I only knew that point.

Q. Did you read any text books, periodicals or trade publications on the subject? A. No, it is all practical ex- 200
perience.

Q. Have you ever attended any engineering school or received any formal training in internal combustion engines and their operations? A. Yes, the Michigan State Auto School and Brooklyn Polytechnic.

Q. Is it true that some of the plaintiff's plugs do not have a petticoat? A. To the best of my knowledge, they all have.

Q. But you are not sure about it, are you? A. I would not want to be—to swear to it, but I still think they have.

Q. But assuming that they do not all have a petticoat, do you know of the reason why a petticoat would be 201
omitted?

Mr. Schaffer: I object, your Honor.

The Court: I think it is proper cross-examination. You asked about a petticoat and a skirt and its function and I think counsel may cross-examine on the subject.

The Witness: Due to the advantages of a petticoat, I see no reason why it should be omitted.

202 Q. What do you think the advantages are besides keeping oil off of the electrode? A. I think I stated in my testimony the only reason I knew for it being there. I can explain it to you again, if you want me to.

Q. Yes, please. A. The petticoat or the skirt, as I call it, is there so that the outer edge of the skirt may retain the excessive heat and thereby eliminate the deposits of gum formation of oily substances which this would have a tendency to keep burning away and thereby keep the end of the porcelain clean and give it a longer life and better performance.

203 Q. Now, I want to read you a statement made in an affidavit filed herein by Bruce H. Sibley who is the plant manager and chief engineer of the Champion Spark Plug Company, with reference to a petticoat. He says:

> "It is the term applied to the sharp lower edge of the insulator and is functional in that it causes oil which accumulates on the insulator to drip off the insulator instead of running down the center electrode and forming a drop between the sparking ends of the electrodes."

204 Now, do you agree that that is the function of the petticoat? A. Yes, I agree that that would have a big bearing on that condition.

Q. Do you agree with Mr. Sibley that that is the function of the petticoat on the insulator? A. I agree that is one of the functions.

Q. Do you know of any reason why Mr. Sibley omitted any other functions or attributes of this petticoat? A. No.

Q. Now, isn't it a fact that any oil that might get on the petticoat would come from below, in the cylinder itself, splashing up? A. Yes.

Q. And since it comes from below, wouldn't it get on 205
the electrodes as well as on the insulator? A. Well, it would not have such a tendency to, no, because that is where your spark occurs, between the two electrodes.

Q. The electrodes are closer to the point of origin of the oil than the insulator, isn't that true? A. That is true, yes.

Q. And any oil that came from below would get on the electrodes before it got on the insulator, isn't that true? A. No, I don't think I would agree to that.

Q. Now, whether or not any oil gets on there depends upon the heat range of the plug, doesn't it? A. What is 206
that question again?

Q. I say, whether or not any oil gets on there depends upon the heat range of the plug, doesn't it?

The Court: What does the word "there" mean?

Q. On the insulator, that depends on the heat range of the plug, doesn't it? A. No, sir.

Q. I mean, if the heat range of the plug is above the vaporizing point of the oil, the oil would not get on the insulator, isn't that so? A. You mean that if you had the wrong heat range plug in the motor?

Q. No, if you had a hot plug in there so that the tem- 207
perature was higher than that of the vaporizing point of the oil, the oil would not accumulate on the insulator? A. If you had a hot plug in there?

Q. Assuming that, isn't that true? A. That could possibly be true, assuming that, yes.

Q. Now, have you ever sold reconditioned plugs? A. No, sir.

Q. Have you ever done any business with the defendants? A. No, sir.

208 Q. Peter Sanders and his sons? A. No, sir.

Q. You have been somewhat prejudiced in your point of view toward reconditioned plugs and for that reason you have never carried them? A. No, I hold no prejudices—talking about spark plugs, of course.

Q. Now, the function of the porcelain that surrounds the center electrode is one of insulation, isn't that true? A. That is one of them, yes.

* * * * *

Q. The principle of the spark plug is an air tight arrangement by which two wires, separated by insulation,
209 are put into the compression chamber of an internal combustion engine, isn't that true? A. That is partly true.

Q. And there are no moving parts connected with a spark plug, isn't that so? A. That could be answered yes and no. While there are directly no moving parts, the electrodes do separate due to heat.

Q. Well, the parts that wear out on a spark plug are the electrodes and that wearing away is due to the burning under high temperature, isn't that true? A. Electrodes wear away and also the porcelain.

Q. The porcelain is far more immune to the action of heat and gases than is the electrode? A. It all depends
210 on the heat range of the plug. If you have too hot a plug, then the porcelain would be burned away, overheat and blister.

That is due to abnormal operating conditions? A. Well, with current cars it is not, because of the poor gases that you are using.

Q. Well, under present conditions then it is really very hard to estimate in advance, merely by knowing the original model of the car and its make, whether a particular plug will function more satisfactorily than another in that particular engine? A. In many cases you must determine

that by the plugs that you remove and by visual examination. 211

Q. Now, it is possible by visual examination to determine whether or not a plug is defective and should be discarded? A. It is in lots of cases, yes.

Q. I believe you testified in your garage you used visual examination to determine that? A. That is the first thing we do. If that shows, by visual examination, there is no use of going any further but if visual examination shows the plug may be cleaned and adjusted, then I say we do that, plus retesting with the testing equipment.

Q. An additional examination would disclose whether the electrodes were too far worn or whether the porcelain 212
was cracked, for instance, wouldn't it? A. Yes.

Q. And a visual examination would also disclose whether a plug was merely fouled or the electrodes had become separated, isn't that true? A. They are always separated.

Q. I mean, further separated than they had been when new? A. If there is any doubt in your mind, we always use gauges to determine that. We don't just casually look at them because they have to be set with a gauge.

Q. Do I understand you to say it is possible by visual examination for you to determine that a particular plug 213
is merely fouled? A. Oh, yes.

Q. There are various causes of the fouling of spark plugs which are dependent on the operation of the engine by the driver and the service conditions and things which have nothing to do with the construction of the plug or what the manufacturer has done to the plug, isn't that true? A. That could be true.

Q. Now, by reason of particular operating conditions, a spark plug could foul very easily in its useful life? A. In extreme cases that does happen.

214 Q. And in those cases the proper and usual procedure in your trade is to employ such means as will remove the fouling? A. To determine what is causing it and rectify the condition.

Q. All right. Now, this deposit that gathers on the firing end of a spark plug consists of carbon or soot and also, in cases of certain gasoline, of lead and other chemical elements, isn't that true? A. That's right.

Q. And these deposits form a partial short circuit across the porcelain which constitutes the insulator of the center electrode and causes the plug to function improperly? A. That happens in some cases.

215 Q. Isn't it true, from your experience, that in certain cases motorists who find one particular plug misfiring discard the entire set of plugs and say, "Put me in a new set of plugs"? A. Well, that is rather a broad statement. My experience has been that the customer does not come in and tell you that he wants one or a new spark plug.

Q. Haven't you had it happen in your experience? A. Very seldom. Occasionally, one spark plug, however, does go bad, as I said before.

Q. Then it is true that customers, at times, discard
216 spark plugs that are not even fouled, isn't that so? A. In my estimation and belief, there would be no reason for a customer discarding a spark plug unless it was worthless to him in his engine.

Q. I did not ask you the question of whether it is reasonable for the customer to do that or not. A. Well, what did you say?

Q. I want to know if, from your experience, it is not true that some customers discard spark plugs that are not even fouled, merely because they want to change all of the spark plugs in their engine? A. I would say very rarely.

Q. But it does happen? A. It does happen. 217

Q. And it has happened in your particular service station? A. Yes, but very rarely, though.

Q. And it also has happened that customers in your particular service station have discarded plugs that were fouled but otherwise structurally satisfactory, isn't that true? A. That is true.

Q. And you tended, in the operation of your service station, in order to make a profit in selling new plugs, to encourage people to replace spark plugs? A. I would say definitely not.

Q. Did you discourage people from renewing spark plugs? A. In many instances we have. We have had them come in and request new spark plugs and upon examination, cleaning and adjusting, we found that was not their trouble. The average car driver does not come in and know what it is all about, otherwise he would not come in. 218

Q. You protested their desire to buy new spark plugs from you? A. Yes, in many cases.

Q. And did the car owners, in all instances, uniformly comply with your protestations and refuse to buy a new spark plug from you? A. Certainly.

Q. Now, with reference to these spark plugs that have been discarded by customers in your service station, that were not even fouled, what did you do with those spark plugs? A. Well, in cases where the customer came in and we found that condition after inserting new spark plugs, we would take his spark plugs and clean them and adjust them as best we could and tell him that we would not guarantee him but in most cases, in fact mostly every case, they want them back and we would put them in a box and give them to him. 219

220 Q. You gave them back to them, is that it? A. Yes, sir.

Q. Now, in the case of individuals who did not want their spark plugs back— A. Yes.

Q. What did you do with these spark plugs in those cases? A. We broke the porcelain and threw them in the ashcan.

Q. Did you know at the time you were doing this that there was a market for all second hand spark plugs still in a serviceable condition, provided they could be reconditioned? A. No, sir, I did not. I never was approached on it.

221 Q. You did not know that you could get good money for those plugs? A. No, sir.

Q. Now, the nature of these deposits that accumulate on the insulator is such that it requires such an operation as sand blasting to properly remove that, isn't that so? A. Yes, sir.

Q. You could not remove it by just rubbing with a piece of cloth? A. Not if it is up in the porcelain, no.

Q. And machines put out by the plaintiff and other spark plugs which provide a means of spraying the firing end of the plug with sand or other abrasive, under pressure, is a satisfactory and practical means of removing

222 these deposits, isn't that true? A. Yes, sir.

Q. And you yourself, from your experience, don't know of any other quick, satisfactory and practical way of removing the deposits, isn't that true? A. I know of other ways of it being done but personally I never did it myself, so I cannot say.

Q. But this is a common method— A. It is a common method generally used through the country in cleaning spark plugs.

Q. Now, the normal effect of sandblasting the firing end of the plug is to cause some erosion of the porcelain

insulator that surrounds the center electrode, isn't that so? 223
A. What do you mean by "erosion"?

Q. It causes it to wear away? A. The end of the porcelain to wear away?

Q. Yes. A. Yes, I would say it does to a certain extent.

Q. And it is entirely possible, from your experience, that such reconditioning by sandblasting could partially remove or totally remove these petticoats that you refer to on the insulators, isn't that so? A. Well, only if it is done——

The Court: (To witness) Have you observed any 224
such result?

The Witness: No, I never have in my own shop.

Q. Will you examine those plugs that you were talking about? A. Yes.

Q. Now, you said that the petticoat of one or the other of those plugs was more or less gone? A. That's right.

Q. And——

The Court: On plug B-4 it is removed to a certain extent and on H-10 it is completely removed.

The Witness: That's right. 225

Q. And wouldn't you say that the removal is the result of sandblasting, or a sandblasting operation? A. Not necessarily, no, I would not say that.

Q. What else caused it in your opinion? A. It could be caused by an excessive amount of wear and use of the spark plug in the motor from which it was removed.

Q. In other words, the condition of the removal of the petticoat was caused by either one or two factors, use of the plug in an engine or the removal of deposits by the

226 sandblasting process? A. Not necessarily sandblasting. I would say by some form of cleaning. I do not know how this was cleaned, so I could not say it was caused by sandblasting.

Q. You do not know of any other form of reconditioning in general use? A. Personally I do know that they are cleaned other ways but, as I said before, I never did it personally.

Q. You don't know of any form of reconditioning in general use that would cause that condition, except the sandblasting method, do you? A. Yes, they do clean them by dipping them in some type of acid but I do not know
227 who does it—I have heard it has been done.

Q. You don't know of any acid that would attack that porcelain and not attack the metal and the other parts of the plug, do you? A. Personally I don't know of any, no.

Q. As a matter of fact, porcelain is impervious to the action of most acids, isn't it? A. That I don't know.

Q. Now, I believe you said you had no difficulty telling that these were reconditioned and not new plugs? A. That's right.

Q. In addition to the factors you have mentioned, did you notice that those plugs were painted? A. Yes, I noted
228 that the metal part has been painted.

Q. Are new plugs painted in your experience? A. I am not sure whether they are painted or not but of course they have a new appearance because the metal is new.

Q. But they are bare metal? A. To the best of my knowledge, they are not painted, I would say.

Q. Did you notice on the hex of each one of those plugs——

The Court: (To witness) What do you see on the hex as you look at it?

The Witness: You see marks where they have been inserted in a car before and you also see stamping on it. I think it says, "A-6" on this one and "B-4" on the other. 229

Q. I am not talking about that. May I see that just a minute, please? A. Yes, sir. (handing counsel plugs).

Q. Now, talking about this stamp, did you notice that (indicating to witness)? A. Now that you have pointed it out, I do, but I had not noticed it before.

The Court: What is it that you see?

The Witness: Well, it says "re—". I know what it is supposed to be but I would not know from reading it. 230

Q. What does it say? A. I can see "R" and then it looks like "L" and then "W" and then "E" and then "WED"—maybe you can make it out better than I can.

Q. Isn't that the word "Renewed" with a little smudge at the top? A. That is what it is supposed to be.

Q. Did you ever see a word like that on a new plug? A. No, I never did.

Q. So that at a glance, if you were examining those plugs, you could tell them from new plugs? A. Not by a glance but I could by examining the porcelain end. 231

Q. I mean, by visual examination you could tell to a certainty, in your own mind that they were not new plugs? A. Oh, yes, I would know they were not new plugs.

Q. All right, sir. Now, you have told us that in putting plugs in cars you consulted the Champion recommendations in the form of a size chart for the particular make and model of car? A. That's right.

Q. From your experience, are there cases where operating conditions of an individual differs or a particular

232 engine in a car have been such than some other plug than the one recommended on the size chart worked better in that particular engine? A. Yes.

Q. Will you tell his Honor the reason for that? A. Well, in some cases where a particular customer has a particular type of driving, such as over the road or long distance driving, where they do excessive speeds for a long period of time and also where the motor has been allowed to accumulate a good many miles before overhauling, such as rings or valves, we have found by putting in either a hotter or a colder plug than the type originally suggested, that maybe then the customer will
233 get better service from that particular engine, but those are remote cases.

Q. So that the final test of the proper spark plug for any particular engine is the actual operation of that particular plug in that particular engine, isn't that so? A. In these remote cases, yes.

Q. Isn't that generally true, in this particular business, that the proof of the pudding is in the eating, so to speak, so far as the recommendation of a plug is concerned? A. No, I don't agree with you there.

Q. After an engine, for example, has started to pump
234 oil, wouldn't it require a somewhat different plug from that same engine when new? A. It would require a motor job to eliminate the oil pumping.

Q. Just assuming there is no motor job and that there is oil pumping? A. Assuming the customer is using the car in that condition and you know it, you say, "We guarantee all our work" and we tell the customer we cannot guarantee any plug in the motor under those conditions.

Q. What I am interested in— A. It is hard for me to answer a question of that type without explaining it that way.

Q. Let me ask you whether or not you are able to 235
state with reasonable certainty from your experience whether or not if is true that after a motor has gotten old, started to pump oil, one plug will function better in that particular engine than some other plug which would function better when the engine is new? A. That is true.

Q. Is it also true that pumping oil is only one factor which would cause a particular plug to turn out to be the best plug for that particular engine— such items as speed driving and the amount of driving, the temperature and humidity of the vicinity and other driving elements would turn out to affect the operation of a plug in an engine and 236
hence the proper choice of a plug?

The Court: I think you can save a lot of time if you will ask the witness whether these charts, as he understands them, indicate the proper plug to use under ordinary and prevailing conditions.

The Witness: Yes, that's the question he should ask.

The Court: Extraordinary conditions bring about a change, isn't that so?

The Witness: That's right.

237

Q. And the charts as you understand them are prepared with recommendations for new engines and new cars of a particular type? A. No, normal driving conditions, as his Honor said.

Q. Now, you said that five years or more ago when you were running the particular repair shop, that a certain percentage of your customers left their cars for repairs and did not see the plugs until after they were put in the engine?

The Court: He said that was true as to most.

238 Q. Were there not also other customers that came in and bought plugs over the counter? A. That was not handled in my department, that was another department.

Q. But in the same repair shop, other customers came in and bought them in the original cartons? A. Yes, the customers that bought them that way came through a different part of the organization.

Q. And this particular outlet for spark plugs you are talking about conducted an extensive repair business which required leaving the car in the shop? A. In any service station in New York City, the circumstances of the City necessarily the customer would have to do that.

239

Mr. Hood: Your Honor, I object to the answer as not responsive.

The Court: (To witness) You are simply saying in most cases a car must stay for a period of time; that there are few repair jobs that can be handled on delivery of the car?

The Witness: That's right.

The Court: Go ahead.

Q. And unless an outlet for spark plugs has a repair
240 shop connected with it, all of the business with customers of the product would be done over the counter? A. Yes, if they did not have a repair shop.

Q. Now, when a spark plug is installed in the engine, in addition to the wiring and the porcelain, the hex of the plug is also visible from outside the engine, is it not? A. No, it is not in most cars.

Q. Well, it is not inside the cylinder, is it? A. It sits in a recess in the cylinder head so that it is not visible without very close scrutiny.

Q. But you can see it? A. If you are an acrobat you can see it.

Q. You don't mean to tell us that you have to be an acrobat to look at an automobile engine and see the spark plug in it, do you? A. Not to see the porcelain but you do to see the hex part of the plug. 241

Q. The hex is the part that immediately joins the porcelain, is it not? A. It is in a recess.

Q. These recesses are of various sizes? A. Yes.

Q. Some are large and some are not so large? A. Naturally, to accommodate the size of the plug that you insert.

Q. Now, just below this hex, in operation there is a screw thread that fits into the top of the cylinder? A. That's right. 242

Q. And everything above the screw head is outside the cylinder and visible from outside the engine, isn't that so?

The Court: Please omit "visible from outside the engine" in view of the testimony of the witness on the matter of the hex. The hex is there to receive the wrench, isn't it?

The Witness: That's right.

Q. Now, the recess you speak of is large enough to receive a wrench and permit it to be turned? A. A special socket wrench, not an open end wrench. 243

Q. You heard read certain testimony here that most spark plugs look more or less alike, did you not? A. I did not hear but very little of what was said here.

Q. That's true, isn't it? A. What brands—all brands?

Q. Aside from the trade mark, they look very much alike? A. Oh, yes, a spark plug is a spark plug.

Q. If the trade markings and the type markings were not present, it would be very confusing to tell not only

244 one original Champion spark plug from another but one original Champion plug from one plug of some other manufacture? A. Well, talking from my experience, it would not be because I can tell the three leadings brands of plugs without looking at the type markings but I did say it was a lot easier if the name was on there.

Q. Even for you? A. Even for me it is easier.

Q. And is it not true that in the Champion line there are plugs which have different characteristics but which are exceedingly similar in visual appearance aside from the trade markings and the type markings? A. Yes, but they are still Champion spark plugs.

245 Q. You are familiar with the fact that the plaintiff and other spark plug manufacturers suggest reconditioning the firing end of the spark plug every 2500 or 5000 miles of operation, are you not?

Mr. Schaffer: I object to the question on the ground that counsel has used the word "reconditioned".

The Court: They suggest cleaning the spark plug, is that it?

Mr. Hood: Yes, your Honor.

246 The Court: Substitute that.

Q. You are familiar with the fact that the plaintiff and other spark plug manufacturers recommend to subsequent owners of the plugs that they remove these deposits and reset the gaps of their spark plugs every 2500 or 5000 miles of operation? A. Periodic cleaning and adjusting, yes.

Q. What is that operation called in the trade? A. Just recleaning and adjusting of spark plugs.

Q. Is it ever called reconditioning? A. I never called it reconditioning.

Q. You never heard of that? A. No. 247

Q. This is the first time? A. I have heard the word "recondition" but we never used it in our service station.

Q. It is not a taboo word, is it? A. No, it is not taboo. There is a lot of difference between reconditioning and cleaning and adjusting.

Q. When is the first time you heard the word "reconditioning"? A. When I was in high school, possibly, a good many years ago.

Q. I show you this piece of paper and I ask you if you recognize it? A. Sure.

Q. What is it? A. It is a Champion spark plug chart. 248

Mr. Hood: I offer it in evidence.

Mr. Schaffer: No objection.

(The above Spark Plug Chart received and marked "Defendant's Exhibit A".)

Q. I now direct your attention to this advice on the bottom of the chart: "Inspect spark plugs every 2500 miles, reset gaps and recondition the insulator for maximum efficiency and service" and I ask you if you know what the plaintiff is talking about on that size chart? A. Well, evidently by reconditioning the insulator, he means 249 cleaning the bottom of the insulator from any substance that may be on it.

Q. In other words, the word "recondition"—your understanding of it from your experience, in examining that size chart, is synonymous with the word "cleaning" that Mr. Schaffer, plaintiff's counsel just used? A. Yes, I would say that is right.

Q. Then, with that refreshing your recollection, isn't it true that you have heard the word "reconditioning" used in connection with this operation of removing these

250 deposits and resetting the gaps of spark plugs? A. I still say, no.

Q. You never heard of it? A. No.

Q. And seeing this on plaintiff's size chart is a complete surprise to you? A. I never noticed it there before, no, sir. We don't use that type of chart in the first place.

Q. You have never done any business with the defendants yourself and you don't know of anyone who has, isn't that true? A. Yes, I know someone who has.

Q. Is he in court? A. To the best of my knowledge, he is not.

251 Q. Did you give his name and address to plaintiff's counsel? A. No.

Q. Now, you know that the plaintiff puts out a reconditioning or cleaning machine for removing these deposits, don't you? A. They put out a cleaning machine, yes.

Q. And this reconditioning or cleaning is accompanied by sandblasting under pressure? A. That's right.

Q. And these machines have been widely distributed, have they not? A. That's right.

Q. And they have been the subject of second hand transactions, have they not? A. That I would not know.

252 Q. Wouldn't you say, from your experience, that at times they have found their way into the hands of operators who were not very competent or experienced? A. I would say no, so far as I know—I will have to answer that no, so far as I know.

Q. Well, it does take a certain amount of competence and experience to operate the reconditioning machines shown so as not to injure the plug, isn't that true? A. Sure, it does take a certain amount of knowledge, it requires a certain amount of knowledge, yes.

Q. Now, when you were running this repair shop some years ago, did you reset the gaps of the new Champion

spark plugs before you put them in the engine? A. Yes, we checked every gap in all new plugs because of the fact that some plugs required different settings and they usually all came through with one setting. 253

Q. In other words, the new plugs that you got had a standard gap? A. Had a standard gap and we had to set them in the proper gap, whatever the specifications called for.

Q. And that was a general practice and custom in the automobile trade? A. It was then but now they come through set for different types of cars.

Q. And other spark plug manufacturers also provided plugs with standard gaps and instructions for resetting? 254
A. That's right.

Q. But with these cartons or packages of the plaintiff, no instrument was furnished to reset these gaps, you had to have your own instrument, isn't that right? A. Sometime ago they did supply a little gapping tool—no charge for that—and we used to give them to the car owners when they came in.

Q. Is that being done now? A. No, due to the war.

Q. But that did not come with the individual plug? A. We used to get one with each carton.

Q. I mean, it was not packaged with the plug? A. 255
No, but it was supplied by the plug manufacturer for that purpose.

Q. Supplied to you? A. That's right.

Q. Now, the removal of the deposits on the insulator by the use of the cleaning or reconditioning machine and the sandblasting, does not affect the insulating properties of the porcelain that surround the center electrode, isn't that so? A. No, I would say it does.

Q. All right, in what manner? A. Well, the force of the sand and the pressure striking against the porcelain

256 has a tendency to make it porous and it makes small holes. If you look at it under a magnifying glass you can easily see it.

Q. That would only mean that the porcelain after reconditioning is more subject to the accumulation of deposits? A. That makes it more porous and makes it more brittle. It would have a tendency to crack easier.

Q. We are interested in the insulating properties. The porcelain is reconditioned——

The Court: By "reconditioned", do you mean cleaning?

257 Mr. Hood: Yes, your Honor.

Q. Before the porcelain is cleaned, there is a short circuit or a partial short circuit by reason of the accumulation of deposits? A. That could be possible.

Q. And that's the reason why you recondition them, isn't it? A. That's the reason we clean them.

Q. I am sorry. After you have cleaned the plug the insulating properties of the porcelain are restored? A. I would say not, I would say they have been lessened.

Q. Would you say that a short circuit is still there
258 after the cleaning process? A. No, but in removing that, as I explained before, with the pressure against that porcelain you not only have removed material but you also remove some of the porcelain and make it porous and if you look at it with a magnifying glass you will see small holes. These have a tendency to make the insulator easier to be broken down. Its effect, as an insulator, has been lessened.

Q. It was worse before the cleaning process, wasn't it?

The Court: You mean by reason of the presence of the deposits? 259

Mr. Hood: Yes, your Honor.

The Witness: If it was so bad that it was short circuited, I would say it was worse.

Q. Then the removal of the deposits removes the short circuit? A. Yes, and it cleans off that substance—sometimes it does, in some cases it does and in some it does not.

Q. Well, the purpose of cleaning and the effect of it is to remove deposits and remove the short circuit? A. To clean the plug and try to make it efficient. 260

Q. So that the insulating qualities of the porcelain are improved over its previous condition, is that not so? A. No, I still stick to my original story, it is not.

Q. Did you ever tell car owners that when you cleaned their plugs for them? A. Yes, I told them that we make just a temporary repair and we have done the best we could under the conditions but we cannot guarantee them.

Q. Yet you urge them, however, to have that done instead of buying a new plug? A. No, that's not right.

Q. Didn't you tell us before you protested their desire to buy a new plug and you said—— 261

The Court: That is not what you asked him before.

The Witness: Now, they are coming in for plugs. Before they just came in to have them cleaned. There is a difference between a customer coming in to buy a set of plugs, whether he needs them or not, or whether he wants his old plugs cleaned.

Q. I asked you before when you found that a customer had a fouled spark plug you did not recommend that they use new plugs? A. What's that?

262 Q. (Question repeated.) A. I said on examination if they showed they should be replaced after cleaning and adjusting, we would recommend replacing the plug.

Q. You always tried to make a sale of a new plug? A. No.

Q. Didn't you want to make a profit on the new plug? A. No, we got paid for cleaning them.

Q. How much did you get paid for cleaning them? A. Fifty cents for six plugs.

Q. Then it is not true that the majority of service stations throughout the country clean plugs without charge or charge not more than five cents? A. I would not know
263 that.

Q. Haven't you any knowledge about what your competitors were doing? A. No, sir.

Q. How long were you in the business running the repair shop? A. Ten or twelve years.

Q. Didn't you ever, in the ten or twelve years, try to find out what your competitors were doing? A. I was not interested, no, sir, not along those lines. We had our own set-up, our own prices and our own labor and our own overhead to meet and we governed ourselves accordingly.

264 Q. And you charged 8 1/3¢ a plug for cleaning them, is that right? A. To remove them, clean and adjust and replace—50¢.

The Court: (To witness) How many is that, six or eight?

The Witness: That is, six cylinders, your Honor; eight is the same.

Q. How much profit would you make on selling six new plugs? A. Well, we would probably make about $2.00, I would say.

Q. Without as much work as was involved in cleaning and adjusting and testing the old plugs? A. Not if you had some customers with whom you would spend an hour selling him a set of plugs when he actually needed them. 265

Q. And you did spend an hour to get a customer to buy new plugs? A. If the customer needed them.

Q. You would spend an hour breaking him down to sell him new plugs? A. If the customer needed them.

Q. From your experience during the time you were transacting business with the public in spark plugs, wasn't it the general practice of car owners to reset the gaps on their spark plugs with the naked eye or without any particular precision instrument? A. The car owner? 266

Q. Yes. A. Very few car owners that I see ever attempted it.

Q. They did not adjust the gaps at all? A. Most of them I know did not. A few cases might have tried it but very few.

Q. I want to read you some of the testimony given by Mr. Rohde, chief engineer of the Champion Spark Plug Company in the case of Champion Spark Plug Company vs. Emener in the United States District Court, Eastern District of Michigan, and I ask you whether you agree with this answer: 267

> "And isn't it the general practice on the part of the public in purchasing this spark plug to adjust that gap with the naked eye?"

and the answer is,

> "In most cases to my knowledge they are not adjusted at all."

Do you agree with that?

268 Mr. Schaffer: May I ask counsel to advise witness of the date when this testimony was given? I think it is pertinent.

The Court: Gentlemen, we will take a recess now until 10:30 o'clock, tomorrow morning.

(Thereupon, a recess was taken.)

TRIAL RESUMED.

Brooklyn, New York,
March 29, 1945.

269

In re: CHAMPION SPARK PLUG CO.,

AGAINST

PETER SANDERS, *et al.*

Before:—HON. MORTIMER W. BYERS,
U. S. D. J.

270

(Appearances as heretofore noted.)

BERNARD F. GRANT, resumed the stand and testified further as follows:

Cross-Examination by Mr. Hood (Con't):

Q. Mr. Grant, I believe you told us yesterday that when the spark plug is installed in the engine it fits into a deep recess and that it requires a feat of acrobatics to see the

hex of the plug when the spark plug is installed. Do you 271
recall saying that?

The Court: I recall that he did not.

Q. What is the fact about that, Mr. Grant? It is possible, Mr. Grant, is it not, without difficulty to see the hex of the plug when it is installed in the recess, is it not? A. In some cases it is difficult and in some cases it is not quite as difficult.

Q. What cases—in what cases is it difficult and in what cases is it not so difficult? A. That depends on the type of manufacture of the cylinder head as to depth and 272
size of the recess. As I explained yesterday, in some cars they have a smaller plug, a 14 mm. or a 10 mm. which necessitates a small recess, which makes it harder to see.

Q. Doesn't that vary whether a car has an "L" head or is an overhead valve engine? A. It might, yes.

Q. That's the determining factor, isn't it? A. It might have something to do with it.

Q. If it is an "L" head engine, the hex is clearly visible and if it is an overhead engine it is not so visible, is it not? A. I would not say that is so in all cases, no.

Q. As a former dealer in Auto-Lite plugs, you are 273
familiar with the Auto-Lite spark plug data book, are you not? A. Somewhat.

Q. I show you this diagram on page 8 thereof, showing spark plugs installed in a typical engine head and I ask you if that fairly and correctly shows how the hex is visible from outside the engine? A. As a photograph goes, I would say that is fair—as a photograph only.

Mr. Hood: I offer this in evidence.

(The above picture received and marked, "Defendant's Exhibit B.")

274 Q. Isn't it true that the Buick and the Chevrolet are the only cars now that have overhead valve engines? A. I would not know exactly.

The Court: Just a minute, is this a photograph or a drawing, this paper that you just marked as Defendant's Exhibit B?

Mr. Hood: I think it is a drawing, your Honor.

The Court: Yes, I don't think that is a photograph at all.

275 Q. I show you this photograph of an Oldsmobile engine and I ask you if that fairly shows how the hex of a plug shows above the engine in that particular car? A. In that particular engine, I would say that is correct.

Mr. Hood: I offer in evidence this Hand Book for Oldsmobile Owners for the year 1940—particularly page 55.

Mr. Schaffer: May we have a date, please?

Mr. Hood: It says, for the year 1940.

(The above Handbook, page 55, received and marked, "Defendants' Exhibit C.")

276 The Court: Does this purport to be a photograph, referring to Exhibit C?

Mr. Hood: I think it is.

The Court: There is nothing in the book to say so.

Mr. Hood: It looks like a photograph to me.

The Court: Well, it doesn't look like a photograph to me.

Q. Isn't it true that in the operation of an automobile certain defects arise in the ignition delivered by that spark plug which are not the fault of the spark plug it-

self? A. Yes, there are many things that constitute the 277
ignition system that can cause defects.

Q. Wouldn't you say there are many cases where people would discard a spark plug that was structurally perfect because of some ignition failure not due to the spark plug? A. I would say in some cases, yes.

Q. And people replace them in most cases with new plugs? A. I would say, yes.

Q. And the plugs that have been discarded are capable of further efficient use, are they not? A. I could not answer unless I had a chance to test the plug.

Q. We are assuming these structurally perfect plugs 278
we are talking about that were discarded because of some other cause other than a defect in the spark plug—they are available for further efficient use, are they not? A. Based on that assumption, I would say yes.

Q. And such causes of failure may be faulty operation of the valves or a defect in the distributor system or various causes? A. Various causes could cause it.

Q. I suppose you would agree from your experience that various owners of large fleets of trucks and taxicabs and other motor vehicles use reconditioned spark plugs? A. I would say yes.

Q. And doesn't it frequently happen that owners of 279
fleets of trucks and taxi-cabs and motor vehicles keep a more accurate record of the cost of operating those cars than the average individual car owner? A. I would say yes.

Q. Now, I believe you said yesterday that at one time the Champion Spark Plug Company set their spark plugs with a standard gap and instructions for resetting and now they set the gaps properly at the factory, is that your understanding? A. My understanding is that they do set the spark plugs at a given gap and then they give out the

280 data that they are to be set for when used in various types of cars.

Q. Then, when you said yesterday that they set them properly in the first place at the factory, you were mistaken about that? A. No, they do set them properly at the factory at a given setting.

Q. Well, I show you this Champion spark plug literature on their spark plugs and I direct your attention to page 8, dealing with spark plug gaps and particularly with the instruction to reset all gaps .022 to .027, except certain stipulated models of cars, and I ask you if that causes you to change your testimony in any way? A. No, I
281 would not change my testimony on that.

Q. Well, I read you this portion of the testimony of Mr. Rohde, Champion Spark Plug Company's chief engineer in the case of Champion Spark Plug Company vs. Emener in the Eastern District Court of Michigan, and I ask you whether you agree with his testimony, in your opinion and from your experience:

> "In the ten years of recommendations as to adjusting the gap, are there a good many instances do you suppose on the average in which the gap
> 282 was adjusted?' A. In comparison with the total plugs installed, comparatively few.'"

What is your opinion about that?

> Mr. Schaffer: I object to that question, your Honor, as being improper, reading testimony from another suit. The witness who gave that testimony is not present; as a matter of fact, the witness who gave it is dead.
>
> The Court: I suppose the question is do you agree with what he said, is your experience the same as his. I will overrule the objection.

(To witness): Is your experience somewhat the same as that which has been read to you? 283

The Witness: Can I have that read again, please?

(Last question repeated by reporter.)

The Court: I don't want your opinion, I want to know whether that is in accord with your observation.

The Witness: I would say there are many that are adjusted, talking from my own experience.

Q. And likewise many that are not? A. A few that are not.

Q. Would you also agree, from your experience, with this portion of his testimony: 284

"That warning as to adjusting the size of the gap has been given to the public for approximately ten years? A. Approximately.

"Q. And has been ignored for ten years? A. Yes, sir."

What about that? A. I would not agree, I would say no.

Q. Now, Mr. Robert Stranahan, president of the plaintiff, and Mr. Rohde, their chief engineer, testified in that case. The president was asked these questions and gave these answers and I ask if these are in accord with your observation and experience: 285

"A. No, I said the average car is run only eight thousand, a little less than eight thousand miles a year in this country, the average automobile.

"Q. What is the normal average mileage life of one of your spark plugs, how many miles? A. I think the average life, at the present time, is around

286 thirty but we recommend replacement in ten but people are not taking advantage of that.

"Q. You think the average is thirty thousand? A. Pretty close to it."

What about that? A. I disagree.

Q. With what portion of that do you disagree? A. I disagree with the average mileage being around approximately thirty thousand, I say it is less.

Q. How much less? A. I would say approximately fifteen to twenty thousand.

287 The Court: (To witness) You mean by that, according to your observation a spark plug functions at its best efficiency for about fifteen thousand miles?

The Witness: Yes, your Honor.

Q. And possibly twenty? A. Leave it at fifteen. I prefer to leave it that way.

Q. Why did you say fifteen to twenty thousand before? A. I think there are tolerances that can be justified by my statement.

288 Q. In other words, fifteen to twenty thousand? A. Yes, fifteen to twenty thousand.

Q. Do you think that Mr. Stranahan is correct when he says the average cars run around eight thousand miles a year?

The Court: I do not think he ought to characterize another witness' testimony. He can say what his experience and observation are.

Q. From your experience, do you agree with that portion of his testimony?

The Court: When was that, please? 289

Mr. Hood: 1934.

The Court: It would be a very dumb person who does not know that the average use of automobiles is very much lower now. Since we have had rationing of gasoline, the average owner's mileage has been very much less than eight thousand a year.

Mr. Hood: Yes, your Honor.

Q. I want to read to you some testimony of Earl Twining. 290

Mr. Owen: If the Court please, that seems contrary to your Honor's remark a few minutes ago, characterizing the testimony of another witness.

The Court: He has not completed his question yet. He may frame it properly. Assuming that so-and-so testified so-and-so, does that accord with your observation.

Mr. Hood: Well, your Honor——

The Court: All right, don't take up any time, go ahead and do it your way.

Q. I want to read to you a portion of the testimony of Earl Twining, engineer for the plaintiff, in the Federal Trade Commission case and I ask you if his answers concur with your observation and experience? 291

"A. No, but very often, that all is very often the result of some mechanic not knowing his stuff and invariably they take out the whole set if one plug misses and the car jerks, they take out the whole set."

292 A. I would say that is common practice to remove the whole set in the case of any complaint.

Q. I suppose when the whole set is taken out of an automobile that some or perhaps all but one of the spark plugs removed are structurally perfect——

The Court: Didn't you cover that yesterday, Mr. Hood?

The Witness: Yes, we did.

Q. Now, in recent years there has been a general change in the design of automobile engines, toward higher
293 compression engines? A. Yes, just previous to the war.

Q. And hasn't the Champion Spark Plug Company changed the design of some of its spark plugs to accord with the change in engine design? A. You are talking about heat ranges and so forth?

Q. Changes in design? A. I would not know anything about the design part of it.

Q. Do you know whether or not the Champion Spark Plug Company in recent years has changed design without changing the type number on the plug? A. No, I would not know.

294

Q. What I have reference to is that the spark plugs made by the plaintiff in 1942 or, let us say, whenever was the last year that cars were produced, were made with reference to engine design of the cars of 1942? A. In other words, you want—the question you are trying to make is whether they manufactured a plug that was comparable to the engine in which it was to be installed—my answer is, yes.

Q. Now, in addition to selling dealers, they sell directly to automobile manufacturers? A. Yes, sir.

Q. And they would make a plug suitable for installing 295
in a new car off the assembly line? A. In the new engine, yes.

Q. Now, between 1934 and 1942 there were changes in the general run of automobile engines toward higher compression engines, isn't that true? A. Yes.

Q. In 1934, the plugs that were manufactured by the plaintiff were with reference to these lower compression 1934 engines? A. That's right.

Q. But due to the turn-over in dealers' stocks, a dealer would be carrying a spark plug made for a high compression 1942 car rather than one made for a 1934 low com- 296
pression car? A. No, they carry a stock of plugs for all makes, they have to, in order to take care of any call they may have. They don't just deal in any one make of car.

Q. Now, assume that the design of a particular plug has been changed by Champion between 1934 and 1942? A. Yes.

Q. In order to accommodate that plug to a higher compression engine and that that has been done without changing the type number of the plug. Then, in that case, assuming those facts, if a customer went in to buy, let us say, J-8 plug for his 1934 car, just picking out a type 297
number at random, and he received a J-8 plug made in 1942 with reference to 1942 engines, he would not be getting the proper J-8 plug for his car, is that right?

The Court: I will exclude the question. There is no evidence in the case to justify the hypothesis. You may have an exception.

Mr. Hood: I respectfully except, your Honor.

Q. If a man wanted to get a plug that was specifically made for his 1934 low compression engine by the

298 Champion Spark Plug Company he would not be likely to find a plug made in 1934, new, on a dealer's shelf? A. No, I don't suppose so.

Q. And the only place that he could have a chance of obtaining that plug would be in the second-hand market, isn't that so? A. No, I don't agree with you.

Q. Why don't you agree? A. Because the Champion and other spark plug companies still manufacture at the present time or at the date you mentioned, in 1941 and 1942, plugs that are comparable to a plug made in 1934 for that particular type of engine which will work satisfactorily.

299 Q. They are comparable but not identical, isn't that true? A. I would say they are identical so far as the characteristics for that particular engine are concerned.

Q. I mean, they are substitutions and expedients used in 1942 to accommodate, as far as possible, the 1934 car owner?

Mr. Schaffer: I object to that, your Honor.

The Court: Unless the witness is familiar with the manufacturing procedures of the plaintiff, I do not see how he can be expected to answer that question. I think those questions should be di-

300 rected to those familiar with the manufacturing of the plug and not to those who sell them.

Mr. Hood: If he knows, your Honor.

The Court: I am pointing out that I do not want to have the witness guess about it.

Q. Have you any knowledge about that subject-matter? A. No.

* * * * *

Q. Did you come here under subpoena, Mr. Grant? A. No, sir.

Q. You had a talk with Mr. Schaffer and Mr. Owen prior to this trial? A. I talked with Mr. Schaffer, yes, sir. 301

Q. And where did that talk take place? A. Up in my service station.

Q. Did you have any previous correspondence with him pertaining to this lawsuit? A. None whatsoever.

Q. Did you have any previous talks with anyone connected with the Champion Spark Plug Company about this lawsuit? A. None whatever.

* * * * *

Q. (Continuing) Is this the official literature of the Champion Spark Plug Company, about their spark plugs? 302
A. To the best of my knowledge, it is Champion's literature.

Mr. Hood: I offer it in evidence.

The Court: What is it?

Mr. Hood: It is a size chart, the back sheet of which is dated January 15, 1938.

Mr. Owen: Here is a similar pamphlet offered in evidence as Exhibit 6 on the motion for the preliminary injunction in this case. (Indicating.)

The Court: It will be received.

(The above Size Chart dated January 15, 1938 303
received and marked, "Defendant's Exhibit D.")

Q. This tester that you see advertised on page 16 is used in connection with the cleaner or reconditioner put out by the plaintiff, is it not? A. It is a separate tester used to test spark plugs before and after cleaning, to determine whether or not they are fit to be used any more, even after you have cleaned them.

In lots of cases there are plugs that you clean and they still test bad and you cannot use them.

304 Q. You have used both the Champion cleaner or reconditioner and the Champion tester? A. I have used the Champion tester and cleaner.

Q. And used them in accordance with the instructions that you received from the plaintiff? A. I used them according to my own instructions which I found out by experience.

Q. You disregarded the instructions of the plaintiff? A. To a certain extent, yes.

* * * * * *

By Mr. Hood:

305 Q. Will you open the box of any of those three or four spark plugs offered in evidence by the plaintiff as Exhibits 1 through 4 and examine them for a moment? A. How many do you want me to open?

Q. Just three or four respective plugs. A. O.K.

Q. Now, will you take a look at those plugs? A. Yes.

Q. From your observation and experience, would you answer these questions as a practical man familiar with automotive affairs.

Those articles you are examining are spark plugs? A. Champion spark plugs.

Q. They are spark plugs with the make or brand
306 Champion? A. Yes.

Q. Are they new spark plugs? A. No, I would say they are not new.

Q. They are Champion spark plugs that have been used? A. That's right.

Q. And they are Champion spark plugs that have been used and reconditioned and cleaned? A. They have the appearance of being repaired, yes.

Q. Then to say that those objects are used or reconditioned or repaired Champion spark plugs would be a truthful description of those objects?

Mr. Schaffer: I object to that. 307

The Witness: I recognize them as reconditioned or rebuilt or repaired spark plugs.

Q. I mean to say, those are used or repaired Champion spark plugs, that would be a correct and truthful description of those objects? A. Yes, they are not new, therefore they are used.

Q. The answer is yes? A. The answer is yes.

Mr. Hood: That is all.

Re-direct Examination by Mr. Schaffer: 308

Q. Do your present duties still bring you in contact with the servicing of ignition systems of automobiles? A. Yes.

Q. And that is the major part of your work at the present time, is that right? A. That's right.

Q. You handle two different brands of spark plugs, Champion and Auto-Lite? A. Yes, sir.

Q. Can you tell us approximately how many spark plugs your company, the Durham Company, sells in a year? A. I would say approximately 800,000.

Q. What proportion of those are Champion plugs? A. 309
Approximately ten per cent.

Q. And the service station and service station activities to which you have referred are but one part of the Durham Company, is that correct? A. Yes, sir.

Q. Are you still in contact to some extent, at least, with the service station end of your company? A. I am.

Q. And you are familiar with what they are doing in a general way? A. I am.

Q. You were questioned concerning the discarding of Champion spark plugs which are not fouled. Would you

310 say that when a Champion plug which was not even fouled is discarded that it has no other defect? A. No, I would say it can have lots of other defects besides being just fouled.

Q. How long does it take to clean a Champion spark plug in a spark plug cleaner? A. Well, I would say between two and three seconds, that is, holding it in the cleaner itself.

The firing end of the spark plug is subjected to the abrasive action material under pressure, like a sandblast? A. That's right.

311 Q. In the cleaner? A. That's right, in approximately two or three seconds, that is all.

Q. Do you recommend or do you in practice clean the plug to the extent where you remove the discoloration from the insulator, from the ceramic? A. No, we do not remove that.

Q. Why not? A. Well, removing that part of the porcelain you automatically have a tendency to destroy the porcelain's value and cut it down to its abnormal size and make it porous and brittle.

Q. Do you change the shape of the insulator? A. Oh, yes.

312 Q. Would you say, in your experience, many large fleets or fleet owners use or deal in reconditioned spark plugs? A. My experience has shown that there are some, yes.

Q. My question, are there many? A. No, I would not say many.

Q. Concerning instances which you have described as unusual, where the type of plug recommended on the size chart is not suitable for the engine condition of a particular car, are you given any instructions or information

by the Champion Company as to what to do in such a 313
case? A. I have been so instructed, yes.

Q. And you are familiar with the fact, are you not, that the Champion Company publishes in their literature information about the heat range of spark plugs? A. I am.

Q. And its so-called thermal curve? A. I am.

Q. And you are aware of the fact that in such cases the company makes recommendations for an unusual situation with respect to the heat range required of spark plugs? A. I do.

Q. Is the Durham Company the principal distributor 314
for the Electric Auto-Lite Company and its products? A. Yes, they are.

Q. You handle Champion spark plugs on a different basis than Auto-Lite? A. We do.

Q. That is, you are the main distributor for Auto-Lite plugs? A. That's right and a sub-distributor of Champion.

Q. Concerning the shortening of the center electrode of the spark plug or, I should say, concerning the wear that the center electrode shows when you remove it from an engine, do you have means of shortening the center electrode of a plug by some means such as a saw or 315
otherwise, to cut it off? A. No, we do that in no such case.

Q. I am referring to the center wire? A. No, we never shorten that.

Q. Why not? A. Because you automatically change the design of the plug. By shortening the center electrode, you thereby cause the spark to be relocated in the combustion chamber which defeats the purpose of the length of the electrode as designed by the manufacturer.

* * * * *

316 *Re-cross Examination by Mr. Hood:*

Q. In your responses to the questions of Mr. Schaffer just now, you were referring to the practice in your particular service station? A. Regarding which questions?

Q. Regarding the method of cleaning or reconditioning the plugs? A. I was talking about my own experiences.

Q. You would not say that necessarily represented what all other service stations were doing? A. I could not answer that.

* * * * *

317 Q. You said you did not shorten the center electrode by any filing or sawing because it would change the location of the spark? A. That's right.

Q. Assuming that the porcelain has been shortened through some means and the center electrode is longer than it was originally designed, wouldn't that cause the plug to be hotter in operation than it is supposed to be?

The Court: (To witness) Is there a relationship between the shortened electrode and the porcelain body?

318 The Witness: If the porcelain body was shortened, I would immediately discard the plug, that would mean the plug was n.g.

Q. Isn't the heat range of the plug determined by the length of the center electrode with reference to the length of the porcelain? A. It is determined by the length that the heat will travel in being dissipated.

Q. If the center electrode were lengthened, wouldn't that cause the spark plug to heat up in operation due to the fact that the metal heats up more readily than the porcelain?

The Court: What do you mean by "lengthened"? 319

The Witness: How can you lengthen it?

The Court: It is not lengthened at all, it is not changed; it is as it was manufactured. He told you that if the porcelain was shortened, that he would discard the plug.

Mr. Hood: What he would do.

The Court: That's right. Now, don't argue with him.

Q. If the center wire becomes more exposed by reason of the shortening of the porcelain in a plug, wouldn't 320 that cause the plug to heat up? A. I would discard the plug with the shortened porcelain.

Q. Well, if someone does not discard it, would it cause the plug to heat up?

The Court: You are just arguing with him now. He says that he discards it.

Mr. Hood: I am asking him if somebody does not discard it.

The Court: He has told you what he does.

Q. Wouldn't the shortening of the center electrode by 321 filing or sawing cause the plug to run colder than it had been running?

The Court: (To witness) Have you ever done it?

The Witness: I have never done it, your Honor.

The Court: Well, if you haven't done it, you don't know, do you?

The Witness: I could not answer.

Mr. Hood: That is all.

(Witness excused.)

322 HERBERT F. ROYAL, called as a witness on behalf of the plaintiff, was first duly sworn and testified as follows:

Direct Examination by Mr. Schaffer:

Q. Mr. Royal, where do you reside? A. Detroit, Michigan.

Q. What is your occupation? A. I am Director of Research for the Ceramic Division of the Champion Spark Plug Company.

Q. And how long have you occupied that position? A. For twenty-four and one-half years. I have been with
323 the company twenty-four and one-half years and I have been Director of Research for a year and a half.

Q. Prior to that time were your duties concerned with ceramic problems and problems of ceramic chemistry? A. Completely.

Q. Do you have other duties with the Ceramic Division in Detroit? A. Yes, as part of my duties I have complete control in the exercising of the engineering inspection system and complete control throughout in the manufacture and shipping of the insulator.

Q. What do you mean by the insulator? A. It is the ceramic part of the spark plug which we manufacture
324 from certain ceramic raw materials and particularly our own materials.

Q. It has no metal parts? A. No metal parts whatsoever.

Q. When you are finished with it? A. When we are finished with it.

Q. And then you ship those insulators to another plant? A. Yes, we ship them to our Toledo plant as well as our other assembly plants.

Q. The insulator is originally prepared from a raw material? A. From a mixture of raw materials.

Q. And after it is so prepared it is called the green or raw insulator? A. That's right. 325

Q. And then what do you do with it in your process? A. The insulators are glazed and fired through our kilns at high temperature.

Q. Approximately at what temperature? A. The temperature is between 2600 degrees Fahrenheit and 2700 degrees Fahrenheit in the majority of insulators.

At the present time the aviation type which we are manufacturing, we use a higher temperature.

Q. Are there any tolerances observed by your company with respect—by your Division, rather, at your plant with respect to the shape of the insulator? A. We are given blueprints by our Toledo engineering division on which the tolerances are specified very closely, in terms of thousandths of an inch, for the length and diameters at various parts of the insulator and also the radius and angles are specified in degrees and they are very close. 326

Q. How about tolerances at the firing end of the insulator, with particular reference to the semi-petticoat? A. They are indicated in the blueprint and we must hold to them in our manufacturing operation.

Q. How about chipping and other damage to the insulator? A. Well, in the handling of many, many millions of small ceramic articles there is bound to be some damage by chipping and we have established in our engineering inspection certain tolerances for chipping. They are very small, hardly visible to the eye. 327

Q. How about the finished insulator, is it pervious to either gas or liquid? A. The insulators which we consider of a quality for shipping, are absolutely impervious to both gases and liquid, even at high pressures.

Q. Do you have any tests that you regularly make for that purpose? A. Yes, we have a test, a standard test;

328 which is a test such as is used by other manufacturers also, in which we take the insulators, either broken or whole, and immerse them in an alcohol dye solution. They are placed in a pressure chamber and usually a pressure of seventy-five pounds per square inch is applied to the liquid which, of course, is transmitted to the insulator and they are left there for a definite length of time, ten minutes to half an hour, usually, and then they are taken out and dried and then they are further broken or chipped to see if there is any further dye penetration.

Q. What do you find on such tests and such inspections? A. We find in such tests, if the quality is right,
329 there is no penetration of the dye whatsoever.

Q. Is this quality confined to the glazed surface of the insulator? A. No, the quality of perviousness or imperviousness is one that extends through the insulator to every part of it, straight through, from the outside surface to the bore inside and of course in the solution the bore which is open is exposed to the pressure action of the solution so that the penetration would be, if it could be, would be from both sides, inside and outside.

Q. Are you able to hold the shapes of the insulator even though you subject them to this high temperature, to substantially standard sizes and dimensions? A. We
330 have to meet the dimensions on the blueprints. Otherwise, they are scrapped because those insulators must fit metal parts.

Q. Do you know whether the Champion Spark Plug Company manufactures all of the insulators which it uses in its spark plugs? A. To the best of my knowledge we manufacture every insulator that we use.

Q. Now, I will come to the question of the decoration of the plugs. After the insulator is fired and formed, what is the next step? A. The first step, of course, is

holding the insulator after it comes out of the kilns for our tests. 331

The next manufacturing step is the delivery of the glazed insulators to the decorating department and there decorations are applied by suitable means, by printing.

Q. It is printed on? A. It is printed on to the glazed insulators and then the insulators are placed on metal grids, they are stood on end, two hundred on a grid and they are placed on a roller conveyor and conveyed to a special decorating kiln.

They go through the decorating kiln in about two hours and during that time they are subjected to a temperature of 1400 degrees Fahrenheit. 332

Q. Does the difference in temperature, the decorating temperature and the original firing temperature of the insulator have any significance? A. The temperature of 1400 degrees Fahrenheit to which the insulator is subjected in the decorating process has no effect on the glaze. It simply fixes the decorating mixture of colors to the surface of the glaze.

Q. Is there, to your knowledge, any penetration of the glaze by the decorating material? A. No, it is purely a surface phenomenon.

Q. Have you had any experience with the removal of the decoration from ceramic insulators, manufactured by the Champion Spark Plug Company, by means of the use of acids or an acid solution? A. Yes, I have had considerable experience with the removal of decorations which must be taken off for different reasons. 333

Q. Would you say that there were large quantities of insulators from which you have removed decorations? A. We have handled them in quantities, sometimes involving hundreds of thousands.

334 Q. In a single group? A. In a single group and smaller quantities, also. I remember distinctly some which ran nearly a half a million in one group.

Q. After the decoration is removed with the acid, the details of which I will examine you on in a moment, after the decoration is removed by means of the acid, then what is done with such insulators at your ceramic plant? A. The insulators would be given our usual final inspection by the production division and then by means of suitable samples the engineering inspection, under my direction, examines the quality of those insulators and if approved, they would be shipped to our Toledo plant for assembling.

335 Q. Did you bring in the redecorating of the insulator? A. No, I did not, I am sorry. After the acid removal of the decoration, the insulators would be brought to the decorating department just as if they were insulators out of a kiln and they would be redecorated and refired through the decorating kiln and then go through the process of inspection I have just described.

To all intents and purposes in the decorating department they are just the same as any other insulator.

The Court: Is there any differentiation between
336 the removal of one design and the application of another or is the examination postponed until after the second decoration has taken place?

The Witness: There would be the usual process examination, as we have in all departments where work is going on, a continuous spot check to make sure that whatever is being done is being reasonably done according to instructions.

The Court: I am speaking of insulators from which there has been the removal of a decoration. Is there any examination for quality at that stage?

The Witness: Do you mean, directly after the removal of the decoration? 337

The Court: Yes.

The Witness: Yes, there would be an examination of a certain percentage of them to make sure that the work is being done properly.

By Mr. Schaffer:

Q. What would you look for in such an examination? A. Damage to the glaze.

Q. You have some sort of a scientific instrument— A. I did not quite finish. 338

Q. Excuse me, continue, please, Mr. Royal. A. We also examine them just as well for the complete removal of the decoration so that when they are redecorated you would not have a mixture of the old and new decoration. It must come off completely.

Q. Tell us how the decoration is removed by your acid process, tell us briefly?

The Court: May I interrupt. I am anxious to know whether there is any reglazing after the removal of the decoration and before the application of a new decoration? 339

The Witness: No, there is no reglazing whatsoever, your Honor, it is not required.

The Court: Excuse me, Mr. Schaffer, proceed.

By Mr. Schaffer:

Q. Is there anything done to the insulator of the spark plug after the decoration is removed to in any way affect the glaze that is on that insulator? A. No, nothing.

Q. Now, coming to the acid process which you testified you have employed in removing the decoration.

340 Will you tell us about that briefly? A: Well, we employ an acid mixture which is made up of two volumes of water, one volume of hydrochloric acid, commonly known to the trade as muriatic acid, and one volume of hydrofluoric acid, commonly known to the trade as HF acid, with a usual standard strength of 48 per cent. Thus this is diluted as a solution with fifty-two per cent. water to start with and the concentration of the hydrofluoric acid by weight is about forty-eight per cent. In other words, we start with a hydrofluoric acid which is about forty-eight per cent. and we use one-quarter of that.

341 The hydrochloric acid starts at thirty-eight per cent. and that would be nine to ten per cent. and all the rest would be water.

That is the solution that we use. That is held in suitable containers, usually a little lead lined tank, lined with sheet lead. That is the customary practice.

The insulators, as we receive them to be treated, the boxes would be unwrapped and the covers taken off and then in lots of approximately five hundred at a time, the insulators are put in a little perforated rubber bucket or wooden bucket, perforated, and would be dipped in this acid solution and left there for thirty seconds, approxi-
342 mately, and then immediately taken from the acid solution and dipped into a tank or sink full of running water and left there for three or four or five minutes.

Then they are taken out and dumped into boxes again and taken to a dryer where they are dried and then from there they go to the decorating department for redecorating.

Q. That is subject, however, as you testified, to your inspection prior to the redecorating? A. Yes, the normal percentage spot check which would be made in any department during any process, to make sure that whatever directions are set up are lived up to.

Q. And is that simply a procedure that you follow? 343
A. Yes, in all our engineering inspections and process inspections also. You would not expect to find trouble but if there is you would want to know about it before you completed your process on a large quantity of material.

Q. Are these acids expensive? A. No, hydrochloric acid is about 16¢ a pound and sulphuric acid can be used in place of muriatic acid and commercially sulphuric acid sells for about 2¢ a pound.

Q. Did you ever make any technical examination of the insulator of the spark plug after the decoration had been removed therefrom by the acid method, similar to the one you have described? A. I have and I have had 344
such examinations made under my direction.

Q. Will you first tell us how the decoration was removed? A. We selected some spark plugs and took them into the chemical laboratory where we had a solution as I have described, just made up, a few drops of it.

Q. What make plugs and how were they selected? A. The last examination we made I sent a boy out to go to a garage to get some discarded Champion spark plugs. He brought back a dozen in a paper bag and we took them into the chemical laboratory where our chemists made up the solution and then with a rubber swab we 345
simply rubbed the decoration with a drop or two of this acid mixture for just a few seconds and then wiped it off with a rag.

We then examined that part of the spark plug which had the decoration, the insulator, visually and could see no damage. We then examined it with a hand glass which magnifies ten power and could see no damage.

We then took it into our petrographic laboratory where our petrographer, Dr. Foster, who is of course an expert with a microscope, as you would imagine from his posi-

346 tion, and we examined this under a thirty power binocular microscope with a selected light and we did this several times and I got reports from him, as well as watching him do it and looking through the microscope myself, that the glaze was, if any, but very slightly affected under the highest magnification used, times thirty, with the incident beam perpendicular to the surface of the spark plug and it reflected light practically the same as on the untreated insulator and there was absolutely no penetration of the glaze and Dr. Foster concluded that the insulator, so far as his observations could tell, was just as
347 serviceable as before.

Mr. Hood: I object to this, your Honor.

The Court: Well, he could state what he observed as to the glaze?

(To witness): You observed that?

The Witness: I did, I watched it and it was done under my direction and I watched it personally.

Q. Dr. Foster is one of your assistants? A. He is.

Q. And he did this work under your direction? A. That's right and under my supervision.

348 Q. And he made these reports to you in the regular way that such laboratory reports are customarily made? A. He gave me written reports on our regular report form.

Q. Do you have those reports? A. Yes, I have. That is the form that we use in reporting our laboratory work. We keep those for the different engineers in different books, so that they are available at all times.

Mr. Schaffer: The witness has produced three reports, each on a single piece of paper, which he

has identified as the reports of his assistant, Dr. 349
W. R. Foster.

I offer those in evidence.

Mr. Hood: May I question the witness on those, your Honor, before they are received in evidence?

The Court: Yes.

By Mr. Hood:

Q. Was this report gotten up for use in this lawsuit? A. We have made several reports. I think possibly some of these were.

Mr. Hood: I object to the offer on the ground 350
that it is not a record made in the ordinary course of business of plaintiff corporation but was gotten up for the purpose of this lawsuit and also contains, in addition to a record of the alleged experiment, conclusions and opinions of a person not appearing here.

The Court: (To witness) Is it part of this assistant's duty to make reports to the company of his experiments?

The Witness: Regularly, everything that he does is reported. We have to have such a system to keep 351
a record of everything that we do.

The Court: And the making of such records is part of his duty?

The Witness: Yes.

The Court: And these reports that are now offered are such reports as are prepared in the ordinary and customary performance of his duties?

The Witness: Yes.

The Court: And they form a part of the record of the company?

352 The Witness: They do.

The Court: Objection overruled.

Mr. Hood: Exception.

(The above Reports received and marked, "Plaintiff's Exhibit 8.")

The Witness: I might add that those reports will also be found in his personal notebook.

By Mr. Schaffer:

Q. I neglected to ask you at the beginning of your examination what training you have had in your field of ceramic chemistry or in chemistry? A. I attended Har-
353 vard College for four years, 1913 to 1917, and I majored in chemistry and took courses, of course, also in associated sciences, such as mathematics, graduated in 1917 with a B.A. degree cum laude.

Since that time I have been associated almost completely with the ceramic industry, most of the time with the Champion Spark Plug Company, Ceramic Division.

Q. I believe you were also at one time in the Government service, were you not? A. Immediately when I got out of college I went with the General Electric Company and then after nine months, accepted an appointment in
354 the Bureau of Standards, Department of Commerce, to work on optical glass for the needs of the Navy at that time. I stayed there about a year and a half.

Q. What is your opinion as to the effect on the core of a Champion Spark Plug which—from which the decoration has been removed by the acid as you have stated? A. There is no effect on the insulator by the acid treatment. We have tested such insulators and we have many routine test checks which we regularly make on every batch of insulators that we put through the plant, such as, strength tests, heat tests and an electric test and to

the best of my knowledge there is no effect by the use of acids. 355

Q. Would you say ~~that was~~ true regardless of whether the insulator was redecorated and reheated? A. Yes, that would not make any difference.

Q. You have, at my request, prepared a solution, an acid solution, which is comparable to the solutions which you use in Detroit? A. Yes, I have a bottle of it here with me.

Q. Will you remove the stopper from that bottle, please? A. Yes, sir (witness complying).

Now, will you please state whether there is any fumes or any fuming of that liquid? A. So far as I can see 356
there is no fuming that is visible to the eye.

Q. Do you have a container wherein you can pour a small quantity of the solution you have there? A. Yes, sir.

Q. You have poured a small quantity of the liquid from the bottle to what? A. This is a little beaker, similar in composition to the bottle here—hard rubber—which is not susceptible to the action of hydrofluoric acid.

Q. Now, will you please put the bottle—I will take it (witness handing bottle to counsel). Now, can you produce a rubber swab such as the one that you referred to? 357
A. Yes, sir, here is a rubber swab right here. It is one that has been fastened to the end of a camel hair brush.

Q. Will you also produce a spark plug? A. Yes, sir, I have here a used #H-10 spark plug (witness producing).

Mr. Hood: May I ask that he use one of the exhibits?

The Court: The exhibits, of course, are in the control of the plaintiff.

358 Mr. Schaffer: It is perfectly agreeable to me, your Honor.

The Court: All right.

Mr. Schaffer: I am offering the witness plaintiff's exhibit 3, which is a carton containing several spark plugs, and I will ask the witness to select two or three plugs from that group (handing carton to witness).

The Witness: I have done so.

Q. Will you please open the carton and examine the decoration on the insulator?

359 The Court: Remove the other three from the tray, there.

The Witness: I will put them in my pocket, your Honor.

Q. What do you find—have you examined the decoration on the insulators of those plugs? A. Yes, and I find that these are the usual Champion decorations.

Q. What is the condition of the decoration on the plug? A. I would say the decoration was in very good condition indeed.

360 Q. On all three? A. On all three.

Q. Now, will you please give us the hex numbers, the numbers you find stamped on the hex of those plugs? A. They are hard to read. D-1, is it?

Q. I don't know, sir? A. No, it is C-1.

Q. And the next one is? A. C-3.

Q. And the third one? A. C-8.

Q. What is the solution that you have in the cup on the tray that you are now holding? A. That is the same solution that I have previously described, fifty per cent.

water, two parts water, one part concentrated hydrochloric acid and one part concentrated hydrofluoric acid, H.F. 361

The Court: (To witness) The same degree of strength you have previously testified to?

The Witness: Exactly.

Q. Now, will you please apply that with the rubber swab you have to the decorated portion of the insulator on one of the plugs and tell us which one it is? A. This is plug stamped C-1.

Q. Now, will you please swab that with the solution? 362
A. Yes (witness demonstrating).

Q. Do you have a cloth? A. Yes.

Q. Will you wipe the insulator of the plug? A. Yes, sir (witness wiping with cloth).

Q. Now, approximately how long has that taken? A. I would say four or five seconds, I did not time it.

Q. Four or five seconds? A. That's about right, yes.

Q. Now, may I have the plug, please? A. Yes, sir.

(Plug examined by Court and counsel.)

Q. Are you able to detect any difference in the glaze 363
of that insulator? A. No, to me it looks like a normal glazed insulator before the decoration was applied. I do not see any change visually.

The Court: Do you wish to have this container with the solution rendered available to you, Mr. Hood, so that you can test the contents or do you accept the witness' statement as to what it is?

Mr. Hood: We will accept the witness' statement as to what it is, your Honor.

364 The Court: I think now we ought to have that particular plug given an exhibit number, the one from which the decoration has just been removed by the witness.

Mr. Hood: Your Honor, I would like to have it made clear on the record that when the witness was referring to C-3, C-8 and C-7, he was referring to the hex numbers put on the plugs for the purpose of test by the plaintiff and not to the type numbers appearing on the insulator.

Mr. Schaffer: That is correct.

365 The Court: That C-1, from which the decoration has been removed, had better be marked separately as an exhibit.

Mr. Schaffer: I offer it in evidence, your Honor.

(The above C-1 spark plug received and marked, "Plaintiff's Exhibit 9.")

Q. What, in a general way, was the skill, the degree of skill of the workmen at your plant who removed the decorations from the insulators, under your supervision, at Detroit? A. The men who did the actual work were entirely unskilled, they were what we call laborers, they
366 have no skill for anything except what they are shown.

Q. What was the nature of the equipment that you used? A. The acid mixture was held in small containers, in lead lined tanks, holding possibly four or five gallons and then the bucket in which the five hundred insulators were dipped at once could be rubber, wood or lead, if you wanted it to, and just of a size to hold about five hundred insulators, about half the size of one of our shipping boxes.

Q. Was the room especially equipped? A. No, only with respect to have a little platform to set the tank on

so that it would be of a convenient height and a sink for supplying running water. 367

Q. How about a ventilating system? A. At that time there was no special ventilation, during almost all of this time. At the present time, however, our whole plant is completely ventilated with air conditioning, so that everything is taken care of.

The Court: (To witness) Was that rendered necessary by this procedure you have described?

The Witness: Oh, no, we never found it required any special ventilation in this procedure because of the solution,—it is a weak solution, it is not a strong solution. 368

Q. Have you ever had occasion to observe commercial practices by using a similar solution for a somewhat similar purpose? A. Yes, I have, in trips to various potteries. Particularly I have seen the operation performed on a small scale and on a very large scale.

I have seen it performed on individual plates, a dozen or so, that they might want to take off the trade mark with a little swab of cotton on the end of a stick instead of a rubber swab, and a drop or two of acid.

I have also seen it in general practice where they deliberately etched the pottery, eating away the design on the edge of a cup or a saucer or a plate and in that particular instance, the acid mixture was contained in a lead lined tank from four to five feet long and about three feet wide and about eighteen inches deep and the tank was full of the solution and dozens of cups, plates and saucers were stacked in there in piles and they were left there seven minutes and then taken out and put in a water bath. 369

370 That practice has been usual in the pottery business for many, many years and it is done now.

Q. You observed it personally, where, at the Lenox Pottery? A. At the Lenox plant in Trenton, New Jersey.

Q. Their product is known as Lenox Pottery? A. That is right.

Q. Now, what is the capacity of the beaker which you have produced, approximately? A. Oh, I would say three or four ounces.

Q. Can you give us an estimate of how many plugs—from how many plugs the decoration could be removed with that quantity of solution? A. Well, thinking in
371. terms of cubic centimeters and twenty drops to a cubic centimeter, I would say the little container would contain enough solution to treat several thousand insulators.

Q. To remove the decoration? A. To remove the decoration.

Mr. Schaffer: You may examine.

Cross-Examination by Mr. Hood:

Q. Hydrofluoric acid is a solution of hydrogen and fluoride, in water, is it not? A. Yes.

372 Q. And hydrogen fluoride is an extremely active chemical? A. Do you mean as a gas or as an acid?

Q. As a gas. A. It is.

Q. And even when dissolved in water or in solution in water and known as hydrofluoric acid, it is still one of the one or two most active acids chemically known to science, is it not? A. I would say it is an active acid, I would not qualify it any further.

Q. It is so active that it has to be kept in special containers, isn't that true? A. Yes.

Q. It could not be kept in glass because it eats its way 373
right through the glass, doesn't it? A. Yes, except recently there has been developed and is on the market a new glass which is resistant to hydrofluoric acid.

Q. But the ordinary trade practice is to keep it in lead or rubber containers? A. Hydrofluoric acid dissolves all metal except gold, the platinum group and lead, so you must use containers made of other materials.

Q. Because of its chemical nature it must be handled with great care because it causes severe burns in contact with the skin? A. Concentrated solutions can and do.

Q. Even this solution used here in court would burn 374
the skin? A. It would not burn it, such as a concentrated forty-eight per cent. commercial acid, which we buy, would, no.

Q. Do you mean to say that if some of this solution were put on your hand, it would not burn your hand? A. If left on for a length of time but not so quickly or severely as a concentrated acid would.

Q. You wouldn't care to demonstrate by pouring any of that on your hand, would you? A. I would, yes. You can, if you want to do it. Understand, I do not recommend this. If you will just give me that little beaker that I had I can easily dip my finger in it. I do not 375
recommend this as a safe procedure, understand.

Q. I do not want to expose you to any undue injury. A. You are not (witness demonstrating). I have dipped my finger in there——

Q. Now, tell us what you have done ——

The Court: Wipe off your finger and then tell us.

The Witness: I have no fear that that is going to burn me. However, I should go out and wipe my hands.

376 The Court: If you feel that you should wash your hands, you are at perfect liberty to do so. I do not want you sustaining any injury whatsoever because of a lawsuit.

The Witness: I am perfectly willing to let it go.

The Court: I do not want you to take any unnecessary chances. I will temporarily excuse you so that you may wash your hands.

(Witness temporarily excused and leaves the courtroom.)

(Witness resumed the stand.)

The Court: Now, tell us for the record whether
377 you are conscious of any burning sensation?

The Witness: None.

The Court: On the finger that you dipped into the acid solution?

The Witness: None.

By Mr. Hood:

Q. From your experience, are there after effects that show up some time later as a result of physical contact with that acid solution you have used? A. You mean, if I expect to have any after effects from this?

378 Q. Yes. A. I do not expect to, no.

Q. Several hours from now? A. I do not expect to, no, because if I had, I would not have done it.

Q. Your contact with the acid there was of a few seconds duration and was promptly wiped off with a rag, we can agree on that, can't we? A. I wiped off the excess. Of course, washing removes it.

Q. From your experience, would it be your opinion that a working man, working with that acid and getting it on his hands and working all day at it, without constantly washing his hands, would have his hands burned

by the acid? A. In our work, covering many hours and many hundreds of thousands of insulators, I do not know of any single case where we had a workman burned. 379

Q. Do they get the acid on their hands? A. No, they probably wash it off but they are constantly—in the splashing and so forth, they cannot help but get it on their hands—they are provided with rubber gloves for an operation of that quantity. For operations like I showed you here, I would not think of using rubber gloves.

Q. These are large, thick rubber gloves suitable for handling large objects such as pails? A. Ordinary rubber gloves that you will find in many similar operations.

Q. I suppose your instructions to the workmen are that if they get this acid on their hands, they should wash it off immediately? A. If they get a lot on their hands, yes, but they are not instructed to constantly wash their hands. 380

Q. Now, at the present time I believe your plugs are what are known as one-piece plugs, that is, they don't come apart? A. I believe we make both but I am not qualified to discuss the manufacture of spark plugs because I deal only with the insulator but I am sure that we make both types.

* * * * * 381

By Mr. Hood:

Q. So that the method you used in your plant of dipping them in an acid bath is inapplicable in removing them from individual assembled spark plugs? A. As I say, I handled insulators only. I would not, if it were left to me, dump these spark plugs completely into acid because it would be very silly.

Q. You say that after this insulator is glazed it is impervious to the alcohol dye solution at seventy-five pounds

382 per square inch pressure? A. Seventy-five pounds pressure to the square inch is the pressure that we use. It is imperwious to pressures much higher than that, many, many times higher.

Q. The compression pressure under firing conditions may run 2400 pounds to the square inch in the cylinder, may it not? A. We have tested them at 20,000 pounds per square inch.

Q. There isn't any necessary relationship between the action of the insulator under pressure of seventy-five pounds per square inch and 2400 pounds per square inch, is there? A. Only this relation: It is much easier a con-
383 trol practice to use and what we see at seventy-five pounds will tell us what we would have at 2500. If it is pervious at all, it will show up.

Q. Is this imperviousness due to the glaze or the basic quality of the material itself? A. The glaze has nothing to do with it. As a matter of fact, most of these tests are made on the unglazed insulator before we go to the trouble of glazing them because it is a control test in the processing.

Q. If the glaze is removed after the plug is assembled by any means that would not make the porcelain more
384 pervious in any way? A. It is not pervious to begin with.

Q. Then, the removing of the glaze, in any way, after the plug is assembled, does not make the porcelain porous, does it? A. No, because it is not porous to begin with.

Q. Then the cleaning of spark plugs with your cleaning and reconditioning devices also does not make the porcelain porous, does it? A. I have nothing to do with that part of the operation. I would say that it would not make it porous because it is not porous to begin with.

Q. Is there anything about directing a blast of sand on your porcelains that would make the porcelain brittle?

A. Only to the extent of reducing dimension to the point where the strength—size of the structure left is insufficient to stand the strain. 385

Q. I am not referring to that but I am referring to the inherent changes in the quality of the porcelain itself—there would be none, would there? A. Not to my knowledge, although I have had no experience with it.

Q. Now, after your insulator has been glazed at 2600 to 2700 degrees Fahrenheit, you put on the printing and then you fire the plug again at 1400 degrees Fahrenheit? A. That's right.

Q. Why is it necessary to again fire the plug at 1400 degrees Fahrenheit? A. That is the nature of the decoration. All ceramic decorations, as I know them in the ordinary pottery work, are all of the nature that temperature is required for softening the flux in the color which fastens the color to the surface of the glaze—you might look at it as a high temperature glaze. 386

Q. Does the firing at 1400 degrees Fahrenheit cause such a flux with the decoration on the glaze that the glaze is permeated to a certain extent or affected chemically to a certain extent? A. Just the bare surface of it.

Q. In the occasions in which, in your manufacturing, you change the type of markings on insulators by this acid treatment and put another type mark or trade mark on, after you had put on the second type mark or trade mark you again fire the plug at 1400 degrees Fahrenheit? A. That is an essential part of the decorating operation, it must be fired. 387

Q. So that on this Exhibit 9, from which you have removed the trade mark with acid, in order to effectively put another trade mark on there, you should put it in the kiln furnace at 1400 degrees Fahrenheit, isn't that your

388 experience? A. In manufacturing insulators that is the way we do it because that would be our process.

* * * * *

Q. After you have put the plugs in this acid bath, you say you again inspect them for damage to the glaze? A. You mean the insulators?

Q. I am sorry, the insulators, yes. A. We examine them only to the extent that we examine any manufacturing operation going on, a spot check to see whether everything is all right.

Q. The reason you make the inspection is because
389 your experience has shown you that the acid is capable of damaging the glaze? A. I think any ceramic product where hydrofluoric acid is given a long enough time to act on will dissolve the glass or glaze—it is used that way in practice.

Q. This glaze that forms at 2600 degrees Fahrenheit on the surface of your insulator is a form of glass, is it not? A. It could be considered a glass but to us, as we use it, we call it a glaze. It could be considered a very high temperature glass, yes.

Q. I believe you stated it is the property of hydrofluoric acid to attack practically all forms of glass? A.
390 There are glasses—there was a new glass made by the American Optical Company which is not attacked and the attack is not with the same celerity on all kinds of glass but there are glasses particularly which have no silica in them whatsoever.

Q. What is the difference? A. Well, hydrofluoric acid is peculiarly rapid in its attack on compounds containing silica.

Q. Does your insulator contain silica?

The Court: (To witness) If you do not wish to answer that question, you don't need to. If it has to do with the manufacturing process that you prefer not to disclose, you do not have to answer the question. 391

The Witness: It would not contain silica as such.

Q. I mean, does it contain a compound of silica? A. Most ceramic articles do.

Q. And your insulators do, do they not? A. Yes.

Q. When you testified to fumes given off by this acid compound, you stated that there were none visible to the eye? A. Yes. 392

Q. Do you qualify that with the understanding that there were invisible fumes given off? A. No, I said that if it was present I could see it and I did not see any fumes.

Q. Are you familiar with an organization known as the National Safety Council, Inc. of Chicago, Illinois? A. Inc., what is that?

The Court: (To witness) That is an abbreviation for "incorporated".

The Witness: Oh, oh, yes, I believe I am, by name but not by any contact with them. 393

Q. I will read to you from a comment——

The Court: Please don't. Show it to him and have him read it and ask him if he agrees with it.

Mr. Hood: But I want to get it in the record.

The Court: I do not believe it is necessarily admissible. However, show it to the witness, please, and ask him to read the specific page.

394 Q. Will you examine page 9 of the State Practice pamphlet #25, entitled "Acids and Caustics" put out by the National Safety Council, Incorporated, particularly the sub-heading #63, dealing with hydrofluoric acid.

The Court: Has it a date?

Mr. Hood: I do not know, the witness has it now, Judge.

The Witness: Copyrighted as late as 1941, here. There are other years.

The Court: Just read what your attention has been called to, please, to yourself.

395 The Witness: I think I would have to agree with what it says there, that is, with all of it.

Mr. Hood: May I read into the record what the witness says he agrees with?

The Court: Just summarize it, please. What is the effect of what you have just read, Mr. Witness?

The Witness: The fact that concentrated hydrofluoric acid is a corrosive, dangerous chemical which can produce severe burns. It is also stated that hydrofluoric acid is a very popular pickling agent.

Q. Don't you agree with the statement that it makes
396 there about the danger of it in evaporated form? A. That cannot be denied, that is well known. There are many things that are dangerous to the same degree and the same extent.

Q. I will read you this statement and ask you if this causes you to change your previous testimony about the after effects of hydrofluoric acid.

"It may cause particularly severe burns around the finger nails. Such burns are not immediately

manifested but later they may become very pain- 397
ful."

A. That would be perfectly true in concentrated solutions. Used in a solution of five per cent. it can be handled very carelessly and I don't consider twelve per cent. very strong.

Q. But actually this is a twenty-five per cent. solution of hydrofluoric acid, as known to the trade, is it not? A. No, it is a twenty-five per cent. solution of a forty-eight per cent. solution of hydrofluoric acid, in water.

Q. It contains also an equal addition of hydrochloric acid, isn't that so? A. Yes, sir. 398

* * * * *

Q. Is this petticoat put on all of your insulators or only some of them? A. To the best of my knowledge it is on practically all of them. I can think of one or two minor shapes that do not have them.

Q. But in the past you made many types without the petticoat? A. A long time ago.

The Court: What do you mean by that?

The Witness: I would say ten to fifteen years to the best of my memory. 399

The Court: So that for the last ten years, the so-called skirt has appeared in nearly the entire line.

The Witness: The skirt has been longer than that but it is at least ten years since we stopped making any quantities of those without it.

Q. That would be about 1935, so far as you know? A. I would rather not give any definite figure because I really don't know.

400 Q. In other words, you could not be sure? A. I am not prepared to testify.

The Court: Mr. Hood, you know I could, with great concentration, subtract ten from forty-five and get a fairly accurate result.

Mr. Hood: I am sorry, Judge.

Q. Do you, in designing the composition of your insulators, make any manufacturing allowance for subsequent sandblasting or abrasive effects on the firing end of the insulator? A. You say the composition of the insu-
401 lator?

Q. Yes. A. By "composition" I infer the materials with which it is made.

Q. Yes. A. The composition of the insulator and what it is is governed by what you want it to do with respect to heat conductivity and strength and electrical resistance with no thought on our part as to the actual physical shape of it; that is designed by the Toledo plant.

Q. In your end of the business is there any allowance made in the composition or manufacturing treatment of these insulators for the fact that in use the firing end of the insulator may be subject to sandblasting operations?
402

The Court: I am sorry to interrupt you, Mr. Hood, but I do not understand that in the use of the ordinary spark plug sandblasting operations are an incident.

Mr. Hood: I understand they are, Judge, as part of the ordinary course of using a spark plug, to clean it regularly with a sandblast.

The Court: That is not the operation or use of the spark plug, that is cleaning the spark plug.

Mr. Hood: That is right but cleaning is an incident to its use during its service life. 403

The Court: No, excuse me, but it is not, I do not agree with you.

Under the testimony in this case it is not an incident of its use. If you are talking about the incidence of its use, you are, I think, compelled to confine your question to the ignition process as conducted in the engine. Anything outside of that is not its use.

Mr. Hood: I think I can clear that up, your Honor.

404

Q. What I am referring to, of course, is sandblasting that is not incident to the use in the ignition of the plug but in the cleaning of the plug. A. I do not know that we make any specific reference in our designing our compositions to sandblasting. We try to incorporate every effect we can think of with respect to its physical properties, strength and so forth and I know in my own designing that anything that you would automatically get which would be usable, would not be a soft composition and would stand any normal usage in service.

The material is very hard and in fact contains sillimanite, which is impervious to hydrofluoric acid. 405

Q. In your opinion, your insulators are of such a quality that they will stand sandblasting and cleaning without inherent damage, is that correct? A. No, I would not say that.

Q. But you make no allowance for such damage? A. That was a factor which is not considered in arriving at our composition; that is the materials actually weighed out to make our insulators from.

Q. Is it considered in your designing or in the manufacturing treatment of your branch of the business? A.

406 Obviously, by proper sandblasting anything can be worn away and our designs are well thought out and our composition can take care of any normal incidental happenings to which a spark plug might be subjected.

Q. That includes the cleaning of the spark plug? A. That I have nothing to do with. The design would be made in Toledo and they would be forced to use our compositions.

Q. In your opinion, proper sandblasting of a plug would not damage the insulator, is that correct? A. I am not prepared to discuss that.

* * * * *

407

Q. If you know, will you state whether or not in the chemical operation of removing the trade mark from the insulator with the acid solution that you brought to court, hydrofluoric acid gas and silicon chloride are given off in the course of the treatment? A. You mean in the course of removing that those gases are given off?

Q. Yes. A. A hydrofluoric acid water solution, just as all solutions, has a definite vapor pressure and that is what would be given off, the vapors from the liquid mixture, the same as any other vapor or liquid.

Do you mean silicon tetrachloride?

408 Q. Yes. A. That could be given off, yes.

Q. Are both silicon tetrachloride and hydrofluoric acid gases poisonous? A. They can be under proper conditions of great concentration.

There is a definite concentration for all acids and injurious chemicals below which they are considered injurious and above they are not. In the case of hydrofluoric acid a concentration of .015 milligrams to the litre is considered a potential hazard. It is not likely that that concentration would ever be reached in the process that I showed you this morning.

Q. But both of those gases are considered toxic, are they not? A. The silicon tetrafluoride I am not familiar with, it is rather an odd chemical and not used very much. Hydrofluoric acid gas, yes. 409

The Court: (To witness) In your experience has either gas been given off during the process of removing the decoration in any observable quantity?

The Witness: No, not that you could see with the eye.

The Court: Could you be conscious of it?

The Witness: It is an acid solution and if you get close enough to the acid solution you could smell the acid odor which all acids have. 410

The Court: But what I mean to say is, is the gas given off in such volume as to render the air that the workmen breathe harmful by reason of the presence of those gases?

The Witness: I would say that if a workman exposed himself continuously directly over the acid bath that the concentration might be harmful but in the ordinary work of being very little exposed to the surface directly above the acid, he would not be too conscious of the acid fumes. 411

The Court: In the operations as you have conducted them, have any harmful results been observed?

The Witness: Never in our experience. We have never had anybody hospitalized or ill or sick from working on this operation.

Q. Do you have any ventilating equipment that you use to carry off the fumes? A. Very moderate, such as we

412 would install on any similar operation and such as other people would.

In the operation that I did here on the stand, that is commonly done anywhere with a little container on a workbench and there is no provision for any ventilation whatsoever, because only a few drops are used at any one time. That is common practice.

Mr. Hood: That is all.

Re-direct Examination by Mr. Schaffer:

413 Q. In the process of removing the decoration from the porcelain, which you observed at the Lenox Plant at Trenton, New Jersey, in that process there was a large area or surface of the acid solution exposed to the worker in the open room, was there not? A. Over the lead lined bath there was an old wooden hood with a very moderate draft.

When the workman took these stacks of dishes out of the lead lined bath, he had to transfer it to a similar large tank of running water. There was no protection against the fumes there and in every lot that he took over, he was fully exposed to the fumes coming from the stack of 414 dishes.

I questioned them about this hazard and they told me they had nobody ever injured in that operation and in fact the man who used to do it had just died at the ripe old age of ninety and he had done the work for twenty-five years or more.

Q. How much acid would you say, in area, was exposed to the air? A. I did not measure it but visually I would say the tank was four or five feet long and three feet wide, in other words, from twelve to twenty square feet.

Mr. Schaffer: That is all. 415
(Witness excused.)

BRACE H. SIBLEY, called as a witness on behalf of the plaintiff, was first duly sworn and testified as follows:

Direct Examination by Mr. Owen:

Q. You live in Toledo, Ohio, and are employed by the plaintiff, the Champion Spark Plug Company? A. That is correct.

Q. And what is your position with that company? 416
A. My present position with the company is plant manager of the Toledo plant or factory manager of the Toledo plant.

Q. And what does that cover? A. Factory manager of the Toledo plant covers the issuing of instructions and the following out of details of general management of the plant, such as following out the manufacturing specifications of the product, laying out the production schedule, seeing that those schedules are lived up to and keeping the equipment and the buildings in repair. Keeping the maintenance of the property in repair and handling the personnel of the factory and the engineering depart- 417
ment and having to do with labor relations of the entire plant.

Q. How many employees are there under your supervision? A. Approximately 3200 under my supervision.

Q. And how many in the engineering department? A. In the engineering department we have—well, that is divided into two divisions. In the engineering proper there are approximately 45 people and in the engineering and inspection department we would have about 90 people.

418 Q. Briefly, what does the engineering department do, what are its general duties in connection with the designing and manufacturing of spark plugs? A. The function of the engineering department is to test materials, work out designs and specifications for spark plugs, test those spark plugs, both by bench testing and engine testing and develop certain materials or at least work on the development of certain materials and also to follow out certain practices in having development work done in outside laboratories and Univesities. They also write up the specifications for the factory to follow in the manufacture of our product.

419 Q. Now, it is in evidence that the plaintiff manufactures more than seventy different types of Champion spark plugs. How long would you say that condition has existed? A. We have manufactured over seventy types of spark plugs for over ten years.

Q. Will you explain the reasons why so many different types of Champion plugs are manufactured and sold? A. All engines not being the same as to fit, we have to have various sizes of plugs to accommodate the different thread sizes used, the different hex sizes used, usually due to certain engine clearances and also plugs of varying ranges to take care of the varying temperatures in
420 the different makes of cars and engines.

Q. Now, confining your answer to the firing end of the spark plug, will you explain how or in what respect these different types of Champion spark plugs differ from each other? A. The firing end of the plug, the various types differ at the dimensions from the end of the shell to the seating or location of the core seat in the shell and that varies from long to short and also another variation is the spacing of the gap.

Q. Name what you have considered to be the critical dimensions in the firing end of a spark plug? A. The

critical dimensions in the firing end of a spark plug are 421
the gap spacing, the projection of the center electrode below the end of the spark plug shell, the particular location of the end of the insulator in reference to the end of the shell and the distance from the end of the core to the end of the center electrode.

Q. I have here two large drawings showing a longitudinal cross-section of a Champion one-piece plug and a Champion two-piece plug. Will you point out to the Court the differences, broadly, between the one-piece and the two-piece plugs? (Handing witness charts.)

The Court: You had better ask the witness if 422
the drawings are accurate.

Q. Will you please look at these drawings and state whether or not they accurately represent one of the Champion one-piece plugs and one of the Champion two-piece plugs? A. This is a drawing, an enlarged drawing of the Champion one-piece spark plug.

Mr. Owen: I ask to have that marked in evidence as a plaintiff's exhibit.

(The above drawing received and marked, "Plaintiff's Exhibit 10.") 423

The Witness: This is an enlarged drawing of a Champion two-piece spark plug.

Mr. Owen: I offer this drawing in evidence.

(The above drawing received and marked, "Plaintiff's Exhibit 11.")

Mr. Owen: If the Court please, I have here reductions of those drawings which I will hand up to your Honor so that your Honor may follow the witness' testimony more readily.

The Court: Thank you.

424 Q. Now, will you refer to Exhibit #10 and point out on that exhibit these critical dimensions which you have referred to? A. This is the one-piece plug.

Q. That's right. A. One of the critical dimensions which I have referred to was the gap, that is the space between the end of the center electrode and the ground electrode.

Q. And the center electrode is colored red and the ground electrode blue, on that drawing, is that right? A. Yes, sir.

Another critical dimension is the length from the end of the shell to the end of the center electrode.

425 Q. And the shell is colored green in that drawing? A. That's right.

Q. Continue, please. A. Another critical dimension is the distance from the end of the insulator to the end of the shell.

Q. The insulator being colored yellow? A. Yes, sir, and the shell green.

Another critical dimension is the end of the insulator to the end of the center electrode.

Q. And does your answer with reference to Exhibit 10 apply also to Exhibit 11 and if there are any differences which you choose to explain, will you do so? A.

426 My explanation would be the same in both cases.

However, this plug has a projected insulator. I believe I stated that the one dimension was the distance from the end of the insulator to the end of the shell but let us say, in this particular instance, it would be—the critical dimension of this plug would be from the end of the shell to the end of the insulator due to the fact that the insulator does project.

Q. Can you state approximately the extreme limits of the distances which the insulator ends inside of the shell

and also that in which it projects from the end of the shell—I mean, in any one or more of your Champion spark plugs? A. We make plugs where the end of the center electrode would project up in the spark plug shell 5/32 of an inch and also we make plugs that have a projection of the center electrode below the end of the spark plug shell of 5/32 of an inch. 427

Q. Can you state approximately the range of extensions of the center electrode beyond the end of the insulator wherever that may terminate? A. The range beyond the end of the insulator?

Q. Yes. A. May I have that again, please?

Q. (Question repeated.) A. That could very well be from 3/16 or 6/32 of an inch maximum to 3/32 of an inch minimum or even as little as 1/16 of an inch in some cases. 428

The Court: This last testimony is directed entirely to the firing end?

The Witness: Yes, sir.

Q. Will you explain briefly the difference between the one-piece plug and the two-piece plug, so that the Court will understand that difference? A. The so-called one-piece plug cannot be taken apart for servicing or cleaning. It is made as the term states, in one piece. 429

This has a sillment seal tightly packed around the insulator and between the insulator and the shell and after the sillment seal is attached, the upper part or flange of the shell is mechanically turned over.

Q. And that type of plug cannot be taken apart after it is manufactured? A. That's right.

Q. Will you explain now—— A. Well, yes, it can be taken apart but if it were taken apart it would be of no further use. It could not be reassembled.

430 Q. Now, the two-piece plug? A. The two-piece plug has a shell with a threaded section and there is a bushing which has a thread that goes into the threaded section of the spark plug shell and the insulator has a shoulder on it and on that shoulder rests a gasket and the bushings act as a gland that tightens down against the gasket and the shoulder core and holds the insulator in place in the spark plug shell. This plug can be taken apart for servicing.

Q. I notice that the gap between the two electrodes in Exhibit 10 has a different relation to the end of the center electrode than it does in Exhibit 11. Will you
431 explain the differences in those two forms of gap? A. This particular gap is one that——

Q. Referring to what exhibit? A. Exhibit #11—this particular type of gap is called throughout our factory a spark plug with an "X" bend and it has—the style of gap is that the spark occurs between the side of this center electrode and the end of the ground electrode.

Q. Referring now to Exhibit 10, will you explain that? A. This style of gap or wire setting is what we term the underneath wire. The spark in this one crosses from the end of the center electrode to the flattened surface of the
432 ground electrode.

Q. Now, in both of these types of gaps, what are the surfaces which are adjacent each other, in what form, are they? A. The surfaces are quite near parallel in each case, both of them. We attempt to set them as near parallel as is humanly practical to do.

In the case of the two-piece plug, which I believe is Exhibit 11, when those electrodes—after those electrodes are rigidly set there is a small circular saw which passes between those two surfaces and cuts some of the material from both the side of the center electrode and the end of the ground electrode.

The Court: Is that for the purpose of rendering 433
these opposite surfaces parallel?

The Witness: Yes, sir.

Q. Do you have different gap settings for your different plugs, and by that I mean, different distances between the adjacent portions of the electrodes? A. Yes, sir.

Q. Have you a gap chart or other document that will show what these differences are? A. Yes, sir, I have.

Q. Will you produce it, please? A. Yes, sir (witness handing counsel paper).

Mr. Owen: I ask that these be marked in evi- 434
dence.

The Witness: There are two sheets, one is marked 1945 gap sheet and the other one is marked 1937 gap sheet.

Mr. Owen: I ask that the 1937 gap sheet be marked as Plaintiff's Exhibit 12, and that the 1945 gap sheet be marked as Plaintiff's Exhibit 12A.

(The above sheets received and marked, "Plaintiff's Exhibits 12 and 12A" respectively.)

Q. Will you please refer to Exhibit 12 and point out the different gaps which are referred to in that gap sheet? 435

The Court: You are not going to ask him to read the contents of that in the record, are you?

Mr. Owen: Oh, no, your Honor, there are different distances of gaps and that is all I want.

The Court: Would it serve your purpose if you took the first and last? The lowest and the largest?

Mr. Owen: I believe it would, your Honor.

436 Q. Will you please give us the widest gap and the smallest gap? A. I see on this sheet a minimum gap spacing of fifteen thousandths.

The Court: (To witness) 15/1000 of an inch?
The Witness: .015 of an inch, yes, sir.
The Court: That is .0015?
The Witness: .015.

Q. Is there any tolerance in that dimension? A. That has a plus three thousandths of an inch dimension and minus nothing.

437 Q. So that a gap between .015 and .018 would pass your inspection test? A. That's right.

Q. What is the widest gap shown there? A. I find a maximum on this sheet at thirty-seven thousandths of an inch, that is .037, with a plus dimension of two thousandths of an inch, .002, and a minus dimension of .002 of an inch.

Q. So that a gap setting anywhere between thirty-five thousandths and thirty-nine thousandths of an inch would pass the inspection for that plug? A. That is correct.

Q. Now, are there several different widths of settings in between those extremes for different plugs? A. Yes,
438 sir, the dimensions in between are pretty much covered in divisions of, say, about five-thousandths.

Q. They range approximately from fifteen thousandths up to thirty-five thousandths with five thousandths of an inch steps? A. That's right.

Q. Now, looking at Exhibit 12A is there anything to add to what you have said regarding Exhibit 12—are the widest variations the same or different? A. I find the same differences shown, the same minimum and the same maximum.

Q. Now, as I understand it, that gap sheet is what your mechanics work with in setting the gaps for the different plugs? A. Yes, this is the specification as handed out by the engineering department for the factory personnel to follow in the manufacture of the product. 439

Q. Will you explain just what steps they take in setting the gaps to comply with the requirements of this specification? A. We have a group of operations, their job classification is called gap setters. They adjust the side wire on each plug and gauge it with a go and no go gauge.

Q. What do you mean by that? A. For instance, in referring to this gap of thirty-seven thousandths, plus two and minus two, they would have a guage, a go gauge of thirty-five thousandths that must go between the two wires and a gauge of thirty-nine thousandths that would not pass between the two wires, one gauge to go and the other gauge not to go, so by using that gauge in that manner, you would know that the gap was in that particular spacing. 440

Q. Are those "go" or "no go" gauges used on every Champion spark plug? A. Yes, sir.

Q. Do you take any further precautions in assuring a correct gap spacing in your plugs? A. After it goes through the gap setting operation, the plugs then go through the inspection operation where each plug is again gauged with the same go and no go gauge. 441

Then, in addition to that, we have a department which we call the engineering inspection, we call those more or less watch dogs and this department's particular job is to recheck not only the gap setting operation but all operations throughout the plant so they naturally take the rechecked plugs, after this gap setting, and inspect for assurance that the proper gauges are being used by the

442 operators and the inspectors and that the gauges have not become worn and also that the particular employee or employees working on these operations are on the beam, and doing a good job.

Q. Do you take any precautions to protect the firing end of the plug, including the gap spacing, when the plugs are finally packed and passed for shipment? A. Yes, we pack—we put a little paper cylinder or thread protector on it.

Q. Paper or cardboard? A. It is cardboard, it is made from layers of paper. It is termed a thread protector but it is put on over the thread and is long enough to pro-
443 tect the gaps during the shipment.

Q. There has something been said about your giving instructions to garage men or dealers who handle Champion plugs to reset the gaps. What have you to say about that? A. We do not instruct any of our dealers to reset the gap. We do think it is a common practice to regauge the gap to get the proper spacing.

In some instances, where plugs are used for other cars than they were originally manufactured for, there is a little packing slip or enclosure packed with each and every plug with instructions to reset the gap at a different spacing if it is to be used in one of the cars that the
444 slip recommends.

Q. In other words, the same plug used in different cars should have a different gap spacing, according to your recommendation? A. Yes, sir.

Q. Can you produce some of those slips which you put in with your plugs, in cases where the gaps may be required to be reset? A. Your Honor, could I change one of my statements that I made before?

The Court: Surely.

The Witness: I do find on this gap sheet, Exhibit 12A, gap spacing of thirty-seven thousandths plus three and minus nothing as the maximum gap spacing. 445

The Court: It is a change in tolerance, is that right?

The Witness: That's right.

The Court: But that is not any wider than you testified to before?

The Witness: One-thousandths wider and this is thirty-seven plus three.

The Court: But basically it is thirty-seven thousandths? 446

The Witness: That is correct.

The Court: And the tolerance is plus three instead of plus two?

The Witness: That is correct.

The Court: And minus two?

The Witness: Minus nothing. Plus three and minus nothing.

The Court: That is a change of 40 thousandths as compared with 37 thousandths, is that right?

The Witness: Yes, sir.

The Court: Well, the greatest tolerance permitted under those circumstances is .004 of an inch, is that correct? 447

The Witness: Yes, sir.

The Court: All right.

Q. (Question repeated.) A. Yes, sir (witness producing slips).

Q. You are producing what? A. These are the little gap instruction sheets that we pack in some of our spark plugs.

448 Q. How many are there? A. There are four that I have produced.

Q. With what plugs are they packed and what generally is the instruction given? A. Well, this one is marked form #473 and it is packed with J-4 plugs and J-5 plugs and the Y-6 plugs and it says: "Notice:——"

The Court: Just a minute, if it is to be offered in evidence, of course it may be read but otherwise—

Mr. Owen: It will be offered, your Honor.

Mr. Hood: May I see it before he reads it, your Honor?

449 The Court: Oh, yes.

Q. Have you finished with what you are stating? A. You asked me to read it but the Judge said, no.

The Court: (To witness) You go ahead and read it into the record for ready reference.

Mr. Owen: I ask that the slip be marked in evidence.

(The above Gap Notice received and marked, "Plaintiff's Exhibit 13.")

The Witness: It reads: "Notice: Spark Gap on
450 this plug is .037 for Chevrolet. For use in all other engines, reset gap to manufacturer's specifications. Champion Spark Plug Company."

Q. Where would they get that manufacturer's specification? A. From the manufacturer's manual or chart.

Q. Or from the gap sheets which you have just read from? A. No, sir, that gap sheet is only used in our factory.

Q. How would a dealer or a garage man get that? A. We show it in connection with some of our literature and

size charts and catalogues and also they would get it out of the car owner's handbook, the manual. 451

Q. Do I understand correctly that the plugs with which the slip is packed are originally set at .037 of an inch and that is the gap spacing which you use and recommend for the cars in which this plug is most widely used? A. That is correct, sir.

Q. And then when this same plug is used in some other car, you recommend that the gap spacing be changed in accordance with the car manufacturer's specifications? A. That is right.

Mr. Owen: I now offer this other slip produced by the witness in evidence. 452

(Gap Notice received and marked "Plaintiff's Exhibit 13A.")

The Court: (To witness) Now, is Exhibit 13A another gap notice and it has to do with another make of car?

The Witness: Yes, sir, but it is printed a little bit differently.

The Court: Is there any difference in the substance?

The Witness: Yes, sir.

The Court: That goes with a different plug? 453

The Witness: Yes, sir.

The Court: What plug does that go with?

The Witness: Type J-8 and J-9.

By Mr. Owen:

Q. What are the instructions? A. This is form #474 and it reads:

"Notice: Gap of this spark plug is .025. Reset gap for Chevrolet to .039.

454 Reset gap for Hudson to 0.32.
Reset gap for Willys to .030.
Reset gap for Oldsmobile Six to .039.
Reset gap for Oldsmobile Eight to .030. Champion Spark Plug Company."

Mr. Owen: You have just read from plaintiff's Exhibit 13A?

The Witness: Yes, sir.

Q. Now, what does the next slip say? A. This one says:

455 "Notice: The spark gap in this spark plug is set at .025 inch. When used for Ford Model A or B open spark gap to .033 inch. Champion Spark Plug Company."

Q. With what plug is that notice sent? A. The C-4 and C-4X.

Mr. Owen: I offer this slip in evidence.

(The above Gap Notice received and marked, "Plaintiff's Exhibit 13B.")

Q. Now, you have one more notice. With what plug is
456 that sent out? A. This one is packed with the Y-4A spark plug and it reads:

"Notice: The gap on this spark plug is .028. Reset gap for Chevrolet to .039. Champion Spark Plug Company."

Q. With what car is that plug most widely used? A. With the gap set at .028 it is used for a Packard.

Mr. Owen: I offer that notice in evidence.

(The above Gap Notice received and marked, 457
"Plaintiff's Exhibit 13-C.")

Q. Now, will you explain what is meant by the heat range of a Champion spark plug? A. Well, the heat range of a Champion Spark Plug is the temperature at which the spark plug runs in an engine. In other words, if it is a very hot type engine, that would require a colder type plug than if the engine were low heat.

The Court: By "running in an engine" do you mean producing a spark?

The Witness: While it is in operation in the en- 458
gine—while the engine is in operation.

The Court: Your answer was the temperature at which the spark plug runs in the engine and I did not know what "running in the engine" meant.

The Witness: The temperature of the spark plug during the engine operation.

By Mr. Owen:

Q. Do different Champion spark plugs have different heat ranges? A. Yes, sir.

Q. Have you any Champion literature which illus- 459
trates the difference between hot and cold Champion plugs? A. Yes, sir.

Q. Will you produce it and explain to the Court——

The Court: Perhaps you had better offer it in evidence first.

Mr. Owen: I offer this exhibit in evidence as a plaintiff's exhibit.

(Catalog of Champion Spark Plug Company, years 1942, 1943 and 1944 received and marked, Plaintiff's Exhibit 14.")

460 Q. Will you explain to the Court with reference to that exhibit, the meaning of the term hot or cold plug?

The Court: What is the exhibit, what do you call it?

Mr. Owen: It is a Champion circular.

The Witness: It is a Champion spark plug catalog.

The Court: Has it a number?

The Witness: No, sir, but it is identified with the years 1942, 1943 and 1944 on the front page.

The Court: And it is called a catalog, is that it?

461 The Witness: Yes, sir.

The Court: And that shows the heat ranges of the various Champion plugs?

The Witness: Yes, sir, and in this catalog they are illustrated. The length of the firing end of the insulator determines very much the heat range of the plug. It is—if it is very short or in other words, if the core is seated close to the end of the shell that would be the cold type of plug, such as the one shown here (indicating)——

Q. On what page? A. On page number 2.

462 Q. Now, first is an illustration of a spark plug insulator? A. Yes, sir.

Q. And that shows a series of insulators with different heat ranges? A. Yes.

Q. And what is the red portion on those different figures? A. The red portion shows the dielectric path or the firing end of the insulator.

Q. And when that red portion is larger in one insulator than it is in another, does the larger red portion indicate that it is the hot type or the cold type? A. It indicates that it is the hot type.

Q. And therefore there should be a longer path through which the heat travels before it may be dissipated? A. Yes, sir. 463

Q. Now, will you explain in connection with this Exhibit 14 and these illustrations of insulators to which you have referred, how the heat range of a spark plug of which those insulators form a part would be affected by the removal of a portion of the insulator at the firing end? A. Well, if a portion of the insulator was removed at the firing end, that would change the dimension of the insulator and make it shorter and due to the fact that the surface or length there is what has a tendency to overcome fouling that naturally—if that were shortened the 464 plug would have a narrower fouling range; if not foul in operation.

Q. Well, what if the insulator were not shortened but the diameter of the insulator above the end was lessened, how would that affect the heat range? A. I believe that the dimensions of the insulator, if they were changed at all it would affect the characteristics and the heat range of that particular type of plug.

The Court: (To witness) Would it be an improvement or reverse?

The Witness: It would throw it out of range and 465 it would not operate in accordance with our recommendations.

The Court: The question is when the diameter is reduced is the spark plug as efficient as before that took place?

The Witness: No, sir.

The Court: Proceed.

466 *By Mr. Owen:*

Q. Does your company sell Champion spark plugs for use as original factory equipment on automobiles and other automotive vehicles? A. Yes, sir.

Q. To what extent has this been true during your connection with the company? A. They have sold spark plugs for factory equipment during my entire time with the company.

Q. And on a few different automotive vehicles or many? A. Many, many makes of engines and cars.

Q. When you secure or endeavor to secure a factory equipment order, what steps are taken by your engin-
467 eering department and also by the engineering department of the manufacturer of the automotive vehicle? A. We first, if possible, learn what we can about the particular engine, that is, the features and the compression ratio and especially the size of the engine so that we can best determine about where to start in. We have to know also the particular thread size and the clearance for the spark plugs. That is for the fit.

After we have this information, we will either take or send to them plugs of several heat ranges so that they can start on a cut and try basis, running that engine
468 and determining which plugs best fit their needs.

In some instances, the engine is sent to us and we go through the same procedure.

After the engine testing has been partly completed by the manufacturer, he then will put one or more experimental engines on the road, on the proving grounds, and there again it is checked to determine whether the spark plug function has been taken care of and the spark plug is adequate and giving a proper life.

Q. And when the engineering departments of your company and of the automotive vehicle manufacturer

have agreed on the best type of spark plug for a particular job, what precautions does your company take in adhering to the particular dimensions of that plug which has been accepted? A. When we get an approval of a type of spark plug for a given engine, there are blueprints exchanged, usually, with both companies. In some cases they only write us and want quotations on a certain type of plug but before that plug is manufactured by us we send them blueprints showing the critical dimensions and sizes and certain specifications that the blueprints cover and we ask them—we send them two prints and ask them to stamp one "Approved" and return it for our files. 469

When the production schedule comes through, the manufacturer takes care of the requirements in accordance with the blueprints which we have or in accordance with the blueprint which is put in the production department by the engineering department. 470

Q. And is that the blueprint which they send back to you with their approval? A. Yes.

Q. And how is that handled? A. It would be a blueprint made from the same original tracing. The blueprint they send back stamped "Approved" would be put in our file.

Q. Can you produce your prints for the H-10 plug and the number 7 plug, some of which have been offered in evidence as Plaintiff's Exhibits 1 to 4? Those are the reconditioned plugs. A. Which are the types that you asked for? 471

Q. H-10 and #7? A. Yes, sir, I have them (handing counsel prints).

Mr. Owen: I offer these prints in evidence as plaintiff's exhibits.

472 Mr. Hood: May I ask the witness a question about these, your Honor, before they are put in evidence?

The Court: Certainly.

By Mr. Hood:

Q. Have you made more than one design of spark plug under the same type marking? A. Yes.

Mr. Owen: I object, your Honor, this is cross-examination that counsel is going into now.

473 The Court: Well, these plans or specifications are being offered in evidence on the theory that they have been approved and are being followed. Now, if that is not the fact, the sooner we know about it, the better.

Mr. Owen: I will ask a question that will bring that out.

Mr. Hood: Well, is this being offered?

The Court: I think your examination at this time, Mr. Hood, is confined to questions of authenticity, not otherwise.

Mr. Hood: That is right.

474 The Court: Now, if this is an authentic specification which has been approved by the plaintiff, I do not think you have anything further to say whatsoever.

Mr. Hood: What I have in mind, Judge, is that since they have made more than one design under the name of B-10 or H-10, I want to know whether these particular designs are the original designs of the particular reconditioned plugs which have been offered in evidence.

The Court: I do not think you are entitled to cross-examine at this time other than to inquire as to the authenticity. 475

Mr. Hood: That is one thing, but——

The Court: No, it is not. Perhaps I do not understand you but I think I do. I would be obliged, if you did not enter into a long debate. Just confine your questions to the authenticity of that paper.

By Mr. Hood:

Q. Are these two papers the original design of the particular reconditioned plug that has been offered in evidence by the plaintiff or are they the original designs of some other plug marketed by you under the same type number? 476

The Court: I doubt if this witness can answer the question.

The Witness: I can.

Mr. Owen: He can answer it but I am going to develop that very fact in my examination if I may be allowed to proceed.

The Court: I do not like to have the examination taken out of your hands at the present time. 477

(To witness): Are those authentic papers?

The Witness: Yes, sir.

The Court: That is all, go along with the direct examination.

Mr. Owen: I ask that those prints be marked in evidence.

(The print on the H-10 plug received and marked "Plaintiff's Exhibit 15" and the print on the #7 plug received and marked, "Plaintiff's Exhibit 15A.")

478 *By Mr. Owen:*

Q. Now, I will ask you if your company has a similar working drawing or print for each of the more than seventy different types of Champion spark plugs which you manufacture? A. Yes, we do.

Q. Will you explain briefly what these two prints, Exhibits 15 and 15A, tell the mechanic who is manufacturing the plug in accordance with what is shown there? A. This being an assembly print, it only shows some of the critical dimensions which you would be able to check on the finished spark plug and it shows the dimension of the
479 shell, that is, to the end of the shell, in other words, the thread length of the spark plug.

It shows the thread size and it shows the over-all dimension and it shows the center wire projection below the end of the shell.

It also shows the location of the shell seat on which rests the gasket and in turn the core and that has to be put on there primarily so as to determine whether it is a hot or cold plug.

Q. Now, will you explain what steps are taken in your factory in the manufacture of the H-10 plug and the #7 plug in accordance with these prints, what steps are taken
480 to insure the compliance of the manufactured plug with the dimensions shown on the print? A. In the first place, all raw materials that are bought, are bought to a standard or to a specification. When that material arrives in the plant it is inspected in various ways, gauged, measured or chemically analyzed and then those various parts are run through the machine operation, governed by an inspection operation or quality control and some of the more critical dimensions are more closely inspected than some that are less critical.

The gauging of the thread at the time the threads are 481
cut or the gauging of enough of those at the time they are cut to insure that the particular machine and die that is being used are cutting properly and cutting to the proper and specified size.

Then, in the assembly of the plug there are check-ups as to the specifications used on the various machines. For instance, in the one-piece plug, such as both the #7 and the H-10 are, there is a specification as to the amount of pressure used on the sillment seal, both in the core and around the core. Those specifications are watched and controlled by what is called the control and inspection department, a process of control and they finally arrive 482
up to what we call the final inspection.

There, the plug is put through the gap setting operation with the gap gauge, the go or no go gauge, after the operation, and then it goes through an inspection operation where each and every plug is inspected by the inspector and she inspects the various critical parts or dimensions of this spark plug and she, in turn, gauges the gap and gives the plug a very good visual inspection and if it is found suitable and passes her specifications, it goes on for packing. If it does not meet her requirements or any parts of the materials do not meet the re- 483
quirements during any of the inspections I have mentioned, those parts are laid aside for either reworking or scrap.

Q. Can you give the approximate number of the inspectors that you have regularly employed in the inspections to which you have referred, relating only to automotive plugs, not including anything for airplane plugs? A. I cannot give you the number of inspectors just working on H-10 and #7 plugs.

Q. No, on all your plugs? A. About 125 inspectors.

484 Q. Can you give the approximate cost of those inspectors, that is, the salaries of the inspectors?

Mr. Hood: I object to that as immaterial, your Honor.

The Court: Objection sustained.

The Witness: The daily cost——

Mr. Hood: The Court sustained the objection.

Q. How may changes in the critical dimensions in the firing end of the Champion spark plug, such as those to which you have referred, affect its operation and effi-
485 ciency in an automobile? A. A change in the critical dimensions would change the spark location in the cylinder. That is, if you were to shorten the center electrode, your spark location would be in another place in the path of incoming gases and that could give you a sluggish action.

If your spark plug gap were too close that would give you an uneven operation, an unbalanced operation and have a tendency to cause rough engine operation together with probably stalling at a very slow speed or when waiting for a stop light to change or something of that sort.

In the case of a wide gap, that can give you an uneven
486 engine performance at high speed on a very heavy pull and very seriously affect your fuel economy in that particular engine.

In the case of a core shortened, which would make for a greater——

The Court: (To witness) By "core" you mean what you call the center electrode?

The Witness: No, your Honor, I will try to call that the insulator from here on.

The Court: The insulator shortened does what?

The Witness: It would create a greater exposure 487
of the center electrode. That center electrode would operate at a somewhat higher temperature which would aggravate the burning and eroding of that center electrode. In other words, make it burn away faster and naturally the gap spacing would increase more readily. It could, very well, in extreme cases, due to the extra exposure of the center electrode, become hot enough to cause the engine to ping or knock while accelerating and even possibly detonate, which would be a very severe knocking and even pre-ignition, which would mean that 488
the gases were being fired out of order due to the excess heat confined or held in the spark plug electrode.

The Court: (To witness) Does that mean prematurely?

The Witness: Yes, sir.

Q. Can you state approximately how many explosions there are per minute or per second in each cylinder of an automobile running, say, at forty miles an hour? A. No, sir, I would have to know the specification of that automobile and the particular engine speed which would 489
change with the gear ratios and so forth.

Q. Can you give any idea how much it would be—take a typical example in running an automobile with which you are familiar? A. Well, an engine turning 3,000 rpm's, your spark fires at every other revolution of the engine, which would be 1500 sparks per minute, in each cylinder.

Q. And about what driving speed would that be?

The Court: It would depend on the weight and several other things, wouldn't it?

490 The Witness: That can be affected by a great many factors. 3,000 rpm would be pretty much the maximum rpm's for the average automobile. There are some faster and a great many slower.

Q. Can you give a few actual examples of the effect of a slight change in one or more dimensions in the firing end of a Champion spark plug? A. Yes, when the Ford Motor Car Company brought out the model known as their V-60, we started to supply for that engine the model H-10A plug. The H-10A—the "A" portion is the manufacturing symbol known in the plant for that purpose.
491 They had a certain complaint of pinging and knocking at certain speeds——

Mr. Hood: Your Honor, if I may interrupt, I object to this testimony of Ford engineers who told this witness something——

The Court: Oh, I will let it in. He is going to tell you why he redesigned a plug. He did it because somebody asked him to. Objection overruled.

Mr. Hood: Exception.

The Witness: This condition was brought to our attention and it so happened that we had a Ford
492 #60 engine on the block and we were well aware of the condition—when I say "block", I mean we had a Ford #60 engine on the dynamometer in our own laboratory. We started to work on that and we immediately submitted a group of plugs with varying ranges, with one critical dimension, the length of the center electrode in relation to the end of shell. The particular plug we were furnishing, the #H-10A, had a center wire projection of .036.

The Court: Thirty-six one thousandths?

The Witness: Yes.

The Court: And you changed that to what? 493

The Witness: We submitted a series of samples, one set of .015 greater.

The Court: That is .051?

The Witness: Well, the ones we actually submitted later were .062.

We submitted a set at 14 or 15 thousandths below the end of the shell and also a set with the center wire trimmed flush with the end of the shell and also with the end of the center wire projecting .015 up inside the shell.

They were several weeks in conducting these tests before we heard very much about it and they 494
adopted the one with the center wire projection of .014 and asked us to make the H-10, which we furnished them with a wire projection of .014 and during the time they were running these tests, we were doing the same thing, running the very same test and we noticed a decided improvement with the plug with those shorter center electrodes. Then we had another case——

Q. What extension of the center electrode did you actually adopt? A. The one that was .014 below the end 495
of the shell.

Q. And that went into factory equipment for the Ford Motor Company? A. That is correct.

Q. Now, you say you have another example? A. I have another one that happened in Toledo with the Willys Company. They adopted and sent us a contract for the #7 plug for one of their models and in rechecking they called up one morning and said that they had lost some of their economy and asked if the plugs we were furnishing them were the same as those which they had origin-

496 ally used during their experimental work and we said, yes, they were the same type and were made exactly the same.

They checked back and they found that during the time they were doing the experimental work they had used C-7 plugs instead of #7, so they reran that test and found that they regained their economy figure and then they asked us to change their contract and supply the C-7 instead of the #7 for that engine.

Q. Do you recall how much difference there was in the spark location of those two plugs? A. In the number 7 plug at that time the center wire had a projection of
497 about 1/16 of an inch and the center wire projection of the C-7 is 5/32 of an inch.

The Court: That is a difference of 3/32?
The Witness: Yes, sir.

Q. You said you had another example? A. Yes, I have another case that happened at the Graham Paige Company in Detroit, several years ago.

We were manufacturing a C-5 plug with the center electrode in .093 of an inch. This particular Graham Paige engine was a very good engine and developed quite
498 a lot of horsepower for its size and we had one of the Graham Paige engines on our dynamometer block and we found, and so did they, that in accelerating there was a tendency occasionally to fuse one or more center electrodes in the C-5 plugs which they were using. This was checked back and it never happened in the same cylinder at all times, it could happen in any of the cylinders and in conducting tests in our laboratory we were able to overcome it when you cut the length of the center wire from .093 of an inch to .065 of an inch.

The Graham Paige Company, in turn, conducted those same tests and were satisfied that the trouble was overcome and they asked us to furnish the C-5 plug with a projection below the end of the core of .065 of an inch. 499

Q. Now, have you anything to add to what you have said regarding the importance of the spark location in the motor cylinder? A. Well, it would seem that the spark location is very important in that it can very greatly affect economy. In other cases, it can project in too far and you you will experience fusing or rapid burning of the center electrode and we know, from our own experience, when we pulled the spark too far out of the cylinder we get more or less of a retarded condition, a sluggish motor. 500

Q. Because of a retarding of the burning of the gases? A. That's right.

Q. The term "balanced set of plugs" or "balanced action of the motor" has been used. Will you explain what you understand that to mean, that is, with reference to the spark plugs? A. Well, I would say that a balanced set of plugs should be plugs all of the same make and type which naturally would be of the same heat range and they should be of the same age and the gap should be all the same or at least in accordance with the car manufacturer's specifications. 501

Q. I have not asked you regarding the length of your employment with the Champion Spark Plug Company? A. I have been employed with Champion—over twenty-four years.

Q. And through what various positions have you passed in that period? A. I originally started to work in the engineering department, working on and making up experimental plugs, testing, both bench testing and engine testing, with experimental plugs and testing materials and

503 a few years later I was put in supervision of the making up of these experimental plugs and have supervised the work of testing materials and I was then recognized as an assistant from then on up until 1939, when I was put in charge of engineering and known as the chief engineer of the Toledo plant.

Q. Aside from your experience and education which you have attained through your employment with the plaintiff company, have you had any educational qualifications in the way of college degrees or such like? A. I do not have a college education and I have never gone to an accredited college.

502 Q. Have you carried on any studies in addition to your work at the factory? A. Yes, sir, at the very start of my working for the company I did all the studying and gathering of all the information and data that I could possibly get in connection with my position and work and I have had to continue to keep that up in order to be able to hold my present position.

Q. I show you four boxes of spark plugs marked Plaintiff's Exhibits 1 to 4 inclusive and I ask you if you have ever seen them before and if so, when you first saw them? A. I recognize the four boxes and I presume they

504 do contain Perfect Process spark plugs. Will it be necessary for me to unpack all of these for identification?

Q. No, not now. About when did you first see these four boxes of spark plugs? A. In December of 1943.

Q. And from whom did you receive them? A. I received the package from Mr. DeWitt of the Champion Company and he told me that the package contained spark plugs and gave me some instructions to look them over and give him a report on them.

Q. When you received this package had it been opened or did you open it in your department? A. I opened the box.

Q. After that, what did you do toward identifying each of these plugs? A. I opened the box and I found the three boxes marked Champion 7 and one box marked Champion H-10, Perfect Process Renewed Spark Plugs and I looked at one plug in each box and I found that it did contain a spark plug. 505

I issued instructions to Mr. Vogel, one of my assistants or associates, to identify these plugs in the following order:

One of the boxes to be marked from A-1 to A-10 inclusive and the plugs in another box to be marked B-1 to B-10 inclusive, and another box C-1 to C-10 inclusive and the plugs in the other box D-1 to D-10 inclusive and for him to look the plugs over, check them and test them and measure some of the dimensions and give me a report. 506

Q. Did he make such a report? A. He did.

Q. Can you produce it? A. Yes, sir.

Q. Have you the original or is this a copy? A. This is a copy.

Mr. Owen: Your Honor, it just occurs to me, I think the original was offered in evidence in connection with the motion.

The Witness: This is a photostatic copy. 507

Q. I hand you a volume of exhibits, four of which are marked 15-A, 15-B, 15-C and 15-D, and I ask you if those are the original reports received by you from Mr. Vogel? A. Yes, sir, they are.

Mr. Owen: I offer these four reports in evidence.

Mr. Hood: I object to these reports on the ground that they are hearsay testimony of a wit-

508 ness not present and we have no opportunity of cross-examining him.

The Court: Did you examine those reports yourself?

The Witness: Yes.

The Court: And did you compare the spark plugs referred to in the report with the report?

The Witness: Yes, sir.

The Court: And did you ascertain whether the report was correct?

The Witness: Yes, sir.

The Court: And what did you find?

509 The Witness: I found that it was correct.

The Court: What do you say now, Mr. Hood?

Mr. Hood: On that testimony, my objection, of course, does not hold, your Honor.

The Court: All right, objection withdrawn?

Mr. Hood: Yes, sir.

(The above Reports received and marked, "Plaintiff's Exhibits 16, 16-A, 16-B and 16-C" respectively.)

Q. When did you first examine these forty plugs and
510 compare them with the reports which have just been offered in evidence? A. A few days after they were turned over to Mr. Vogel at my instructions. He brought them back with the report and at that time I went over each and every plug with the report.

Q. Have you since examined them to see if they still correspond with the report? A. Yes, sir, I have examined each and every one in accordance with the report.

Q. How long ago was that examination made? A. Last week.

Q. Will you first refer to the report on the H-10 plugs, 511
which is Exhibit 16, and point out how those ten plugs—well, first state what those ten plugs were originally, when they were sold by the Champion Spark Plug Company? A. Nine of them were H-10 plugs. Seven of the H-10's were known as our H-10A and two of them were known as our H-10C.

The box also contained one J-9, 64A.

Q. What is the significance of your designations, H-10A and H-10C? A. That usually is for identification or a change in the sale number because there has been some change in either dimension or the manufacture of 512
the plug.

Q. This Exhibit 15 in evidence here is the print for the H-10A plug (indicating)? A. Yes.

Q. Have you one for the H-10C plug? A. Yes, sir (witness producing print).

Mr. Owen: I offer this drawing in evidence.

(Drawing for the H-10C plug received and marked, "Plaintiff's Exhibit 17.")

Q. Were these H-10A plugs and the H-10C plugs both manufactured during the same period or during different 513
periods? A. Well, the H-10A plug was the plug of the earliest manufacture but the H-10C we started to manufacture before we had stopped manufacturing the H-10A. There was an overlapping there.

Q. Can you give the dates when the changes were made? A. We manufactured the H-10A—I think we started that in June of 1937 and we started the H-10C in June of 1940 and the H-10A ran through until October of 1940.

Q. How do those two plugs differ in the firing ends, if at all? A. There is a difference in the projection of the center electrode below the end of the shell.

514 In the case of the H-10A it is .036 of an inch and in the case of the H-10C it is .014 of an inch.

Q. Do you know why that change was made? A. There are some other dimensional changes on here also.

Q. Oh, go ahead with them. A. Due to the shortening up of the center electrode, the dimensions of the ground electrode were also changed. In other words, the ground electrode on the H-10C was bent closer to the shell.

Q. Was the gap spacing changed? A. The gap specification was changed—different on the H-10A than it was on the C. The H-10A original gap was .025 of an
515 inch and the H-10C gap was and is .052 of an inch.

Q. State, if you know, when these changes were made? A. As previously stated, the shortening up of the center electrode on the H-10 was done to overcome the pinging condition that was experienced with the Ford Motor Company.

Q. And the other changes were made to compensate for that change? A. Yes, because with the shorter center electrode, you have to bend your side wire to a point closer to the shell to still give you a near parallel gap setting.

516 The Court: (To ~~witness~~) That means that the H10A plug was a two-piece plug or a one-piece plug?

The Witness: It was a one-piece plug, Your Honor.

The Court: Repeat that last answer.

(Answer read as follows:

"Yes, because with the shorter center electrode, you have to bend your side wire to a point closer to the shell to still give you a near parallel gap setting.")

The Court: I do not see why the parallel requires 517
that—I could see why you want to close the gap but I should think the parallel relationship would not be affected by the shortening of the center electrode, in your Exhibit 10. I can see why it would in your Exhibit 11, which is the two-piece plug.

The Witness: Well, you see if this wire were shortened here (indicating)——

By Mr. Owen:

Q. Referring to what? A. Referring to Exhibit 15.

The Court: Now, you say you are shortening this 518
wire here—you mean the center electrode, don't you?

The Witness: Yes, sir.

The Court: Now, it remains just as parallel with the ground in its shortened condition as it was in its lengthened condition, does it not?

The Witness: But if you would shorten the center electrode and then to get the same gap spacing——

The Court: I am only directing my question to 519
the one element of parallel relationship. I do not see how the mere shortening of the center electrode changes the parallel relationship, not unless it is my stupidity.

Q. Will you explain that, please? A. With the center wire shortened, to be able to set your gap to a gap spacing—for instance, let us say, with that particular wire there we have a given length of the center wire and a given side wire and that you had therefore a .025 spacing. Then you cut your center wire off and you still want

520 to have the same .025 spacing. Then you would have to bend that side wire up a little bit and it would bend at an angle, instead of being parallel with the end of the shell.

The Court: Oh, it is the bending of the ground electrode that disturbs the parallel relationship between the bottom of the center electrode and the ground.

The Witness: I have stated when we changed the center wire length in the H-10C and the A, that we also changed the location of the bend of
521 the side wire—it is shorter. It shows on these prints (indicating).

The Court: That means that the elbow comes closer to what you call the shell, doesn't it?

The Witness: Yes.

The Court: If that is so, I do not see how the parallel relationship is disturbed but I suppose it is not important that I should.

By Mr. Owen:

Q. Now, in your recent examination of these forty plugs, you stated that all of them were in the same con-
522 dition as when you first examined them. Does that apply to the entire forty plugs or was one changed? A. The last time that I examined them there was one plug changed and that was the one from which we had removed the side electrode for examination—that is the plug marked for identification, B-2.

Q. Mr. Royal also changed one this morning by taking off the markings, did he not? A. But I have not examined all of the plugs since then.

Q. Now, will you refer to your report, Exhibit 16, and state with reference to the H-10 plugs, referred to there-

in, how the firing end dimensions compare with those 523
corresponding dimensions when the plugs were manufactured and sold by the plaintiff? A. Under the gap dimension the H-10A, there were five—seven H-10A were in this box and five of them were found to be in accordance with our specification of the H-10A plug and two were found to be not in accordance with our specifications.

Q. That is as to gap? A. As to gap.

Q. Did they have a parallel surface, those gaps? A. No, in some cases the center electrode was burned round and they were not too carefully set as to parallel and the two H-10C's there were two of those in accordance with our original specifications—as to gap. 524

Q. By that answer do you mean that the smallest distance between the adjacent ends of the electrodes was within the original specifications? A. Yes.

Q. But you do not mean that the spaces were parallel to each other? A. No, there was an eroding at—I am referring now to the gap spacing, the air space and the closest point between the center electrod: and the end electrode and the ground electrode.

Q. Do you find the gap spaces to be parallel in any of these H-10 plugs in Exhibit 1? A. Oh, there were some in there that were near parallel.

Q. Have you explained the importance of having the 525
gap spaces parallel? A. When the gap spaces are not parallel, the spark naturally, following the path of least resistance, will jump between the two closest surfaces and if the wires are not parallel you have more or less of a peak or a point governing the space and due to that lesser area, that portion can be burned away more rapidly and decrease the gap life.

Q. Will you proceed and explain the variations in these plugs in the firing ends from the original design

526 with respect to other factors than the gap? A. Referring to the dimension of the distance of the tip of the core to the end of the center wire, on the Champion H-10A plug, as manufactured it is 4/64ths and in examining these plugs in this box I found two of the H-10's to be in accordance with the original specification and five of them to be wrong.

In the case of the two H-10C's, I found one to be correct and one wrong.

Then there was a J-9 plug in that same box and that same dimension was found to be wrong on that plug.

527 Q. Now, I call your attention to the data in Exhibit 16 under the heading "Relation of side wire to center wire" and I ask you what did you find there in relation to these ten plugs? A. I found that it was wrong in the case of all ten plugs.

Q. What did you mean by the relation of the side wire to the center wire? A. That covered whether or not the wires were parallel or if the end of the center wire was flat—in other words, some of these were rounded over and in more or less of a ball end due to being used in an engine.

528 Q. State whether or not any of those ten plugs, in the relation of the side wire to the center wire, would have passed the original inspections in your plant when those plugs were manufactured? A. No, sir, they would not. We have made a comparison with a new plug and this report shows all ten of them to be wrong.

Q. What did you find in this report with reference to the condition of the center wire? A. The nine H-10 plugs I examined and the one J-9, I found the center wire—they all show that it was burned and in some cases, burned badly.

Q. In how many cases were they burned badly? A. 529
Seven plugs of the ten were burned badly.

Q. What did you find with respect to the side wire or the side electrode? A. I found there had been a new side wire welded to each one of the ten plugs.

Q. Did you make an examination of the material of the side wire which you found in these ten plugs? A. I did not make an examination of the material of the side wire of these ten plugs but I did of one of the other plugs.

Q. And with reference to the other thirty plugs, did you find the same condition with respect to the side wire, that is, the H plugs had a different side wire from what 530
it had originally? A. Each one had a different new side wire welded to it.

Q. How does the method of welding those new side wires compare with the method whereby the original side wires were welded on and what is the difference in method, if any? A. The H-10, the same style as we use, commonly known as butt welding, that is the end of the wire is welded on the end of the shell.

Q. Is that shown in this drawing, Exhibit 10, the drawings of the one-piece plug? A. Yes, sir, that is shown there. The end of the wire is butt welded right on the end of the shell in this manner (indicating). 531

Q. How did you find the side wire to be welded on the forty defendants' plugs? A. Thirty of them in the forty, the wire was what we term flat welded on the end of the shell, the flat side of the wire had been laid against the end of the shell and then welded.

Q. Does that make any difference in the efficiency of the weld and in the operation of the plug? A. It is a style and a design which we used at one time and discarded it due to serious failure with it.

532 Q. How did it fail? A. It was a very hard weld to control due to welding a greater area and we had complaints of the side wires dropping off or tearing off when people attempted to adjust the gap and we also found in some cases that there was a restriction of the wire itself due to the method and style of welding.

Instead of the wire having a tendency to sink into the shell all along the surface, the steel at the inner bore of the shell would fail to collapse and that would penetrate into the nickel flat wire as the wire was pushed down on to the shell——

533 Q. That is the side wire to be formed at that point? A. Yes, sir, and it makes a narrow cross-section of wire and restricts the heat flow.

The Court: At this point, gentlemen, we will take a recess until Monday morning at 10:30 o'clock.
(Thereupon, a recess was taken.)

TRIAL RESUMED

Brooklyn, New York, April 2, 1945.

534 Before:—HON. MORTIMER W. BYERS,
U. S. D. J.

(Appearances as heretofore noted.)

Mr. Schaffer: With your Honor's permission, we would like to interrupt the testimony of Mr. Sibley to take the testimony of an out-of-town witness who has come here this morning.

The Court: Is there any objection?

Mr. Hood: I have no objection, your Honor. 535
(Witness Sibley temporarily excused.)

GEORGE DOYLE, called as a witness on behalf of the plaintiff, was first duly sworn and testified as follows:

Direct Examination by Mr. Schaffer:

Q. Mr. Doyle, where do you reside? No. 58 Parkview Avenue, White Plains, New York.

Q. What is your occupation? A. Service Manager of the White Plains Motor Service. 536

Q. Where is the White Plains Motor Service located? A. No. 33 Martine Avenue, White Plains.

Q. How long have you been connected with that concern? A. 22 years.

Q. In a general way, what was and is the nature of your work? A. The repair and maintenance of automobiles.

Q. Do you have occasion to inspect and repair ignition systems of automobiles? A. Yes.

Q. And in connection with such repairs, do you have occasion to check and install spark plugs? A. Yes. 537

Q. And what make of plugs does your concern handle? A. Champion.

Q. Any other? A. No.

Q. Now, in connection with your inspection and work with ignition systems, do you find in some cases that spark plugs become defective? A. That's right.

Q. What do you do with such plugs? A. Discard them.

Q. And in their places you install what? A. New plugs.

538 Q. What, in a general way, or what are some of the common defects which you find in spark plugs which you discard? A. Electrodes burned and porcelains, the insulator is buffed away, sandblasted away, and cracked and that's about all, and the internal resistance of the spark plug.

Q. Do you mean to the wires or the electrodes? A. That's right.

Q. Can you tell us approximately how many spark plugs are installed at your garage in the course of a year? A. I would say approximately twenty-eight hundred to three thousand a year.

539 Q. How are those plugs sold to the motorist? A. Through a tune-up job, through a replacement of plugs. If a plug is worn out and a customer brings the car in, if it is not operating efficiently and he wants the motor tuned up and we find that the spark plugs are not working properly, so then in the process of tuning the motor we install new plugs.

Q. Do you find in some instances, in checking the spark plugs in a car, do you find that they can be restored for further use by the motorist in the car? A. Some times.

Q. What do you do in those cases? A. We sandblast
540 them and wire brush them and put them back in—we wire brush the electrodes.

Q. Do you remove any portion of the electrode? A. No.

Q. Do you install different side wires, side electrodes? A. No.

Q. To what extent do you sandblast these plugs? A. Just to get the carbon off the insulator and have it so that it is clean and from observation it looks good. I mean so far as you can see, after it has been cleaned,

the insulator has not been buffed off too far, just so it will be efficient in the motor. 541

Q. You are familiar with the fact, aren't you, that the Champion spark plug, new Champion spark plug comes packed in cartons and containers? A. Yes.

Q. What have you to say with regard to instances where the spark plugs are sold by installing them in the car owner's car; what have you to say with respect to those instances as to whether the car owner sees the carton in your garage? A. Well, the car owner does not stay around——

Mr. Hood: I object to the question as calling for a conclusion. 542

The Court: He is stating what he has observed as to the motorists' habits in looking at the cartons, if they do, or the spark plugs, if they do. I will allow him to state that.

Mr. Hood: Exception.

Q. Will you please answer? A. The customers very seldom stay around because it takes quite a little time to tune a motor and he is never there to see the carton that the spark plugs come in.

Q. Are there any other defects which occur to you which you find in Champion spark plugs when you examine them, after they have been used, other than burned electrodes and worn away insulators about which you have already testified? A. No, not from observation. In testing you can, sometimes, after a plug has been buffed and cleaned and you have had it in operation and it does not perform properly, you have to discard it and put in a new one, even though it looks good. 543

Q. What about cracked insulators? A. You have them sometimes where you cannot see them, it is up

544 inside of the insulator and it does not show up through a test or observation so the only way, if you test the car out and you still have this particular miss, you have to discard the plug and put in new ones.

Q. Do you sell any so-called reconditioned or rebuilt spark plugs at your place of business? A. No, I never have sold reconditionad plugs. In fact, nobody has ever asked me about reconditioned plugs.

Q. You mean, customers? A. Customers never mentioned it to me.

Q. Do you have any requests? A. Never had any requests, no.

545 Q. Now, when you install a new set of Champion spark plugs in an automobile, do you make any separate charge or any charge for installation service? A. No, a new set of plugs—you do that in tuning up, that goes into the labor of tuning the motor, but if a man comes in and asks for a new set of plugs, we don't charge for the installation of the new set of spark plugs.

Q. Do you make any trade-in allowance to a customer for his old plugs? A. No, never.

Mr. Schaffer: That is all.

546 *Cross-Examination by Mr. Hood:*

Q. Are you an engineer, Mr. Doyle? A. No, sir.

Q. Do you own this service station? A. No, I work for it.

Q. And you only handle Champion spark plugs? A. That's all.

Q. I suppose your relations with the Champion spark plugs are friendly? A. Well, naturally.

Q. How did you hear about this lawsuit? A. They talked it over with me—Mr. Schaffer there (indicating).

Q. And who else? A. Mr. Schaffer representing the company, that's all. 547

Q. How did you happen to meet Mr. Schaffer? A. Through Mr. Kaplan.

Q. And who is he? A. He is a representative of the Champion Spark Plug Company.

Q. And what did they say to you? A. They just wanted me, they wanted my honest opinion about this and told me they would ask me to tell what I thought about these reconditioned spark plugs, did I ever see any or have any dealings with them.

Q. They consulted you about your opinion? A. That's right. 548

Q. Did you ever testify in court before? A. Only in accident cases.

Q. In testing a plug, a testing machine reveals cracks in an insulator, doesn't it? A. Not always.

Q. What does reveal a cracked insulator? A. Sometimes you cannot even see it, nothing will reveal it, only that the plug is no good.

Q. How do you know the plug is no good if nothing reveals it? A. By the performance of the car.

Q. Then the test of whether a plug is good or bad is the actual performance in a car, isn't it? A. That's right. 549

Q. Do you carry a full line of Champion spark plugs? A. I am pretty sure that they do. I do not have anything to do with the sales end of it. We have a merchandise end in the front that takes care of that. What plugs they have in stock, we don't go into.

Q. You also sell over the counter to people who come in and buy plugs, don't you? A. That's right.

Q. So that the sale of plugs in your garage by installation in engines under repair is only a portion of the spark plugs that are sold, that is, a portion of the total sales? A. That's right.

550 Q. And there are other concerns selling plugs around New York that do no repairing, isn't that so? A. That I don't know, unless it is an accessory store or something of that kind, I could not answer that question.

Q. Concerns like the Times Square Auto Supply Company and the Strauss Stores? A. Yes, they sell spark plugs.

Q. And they sell quite a few, don't they? A. I assume they do.

Q. So there is a great volume of spark plugs sales sold over the counter in original cartons, isn't there, Mr. Doyle? A. I could not answer that question, I really
551 don't know what Strauss and those stores do because I never deal with them.

Q. But they are big stores? A. I really don't know anything about them.

Q. All right. The only spark plugs that are sold without the customer seeing the carton is in those outlets that also have a repair shop, isn't that true? A. I assume so, I mean——

Q. And when——

The Court: Let the witness finish his answer, Mr. Hood.

552 The Witness: I do not know or have any idea of anybody selling spark plugs any other way.

Q. And even where they have a repair shop, it is only on occasions where the car is left for repair that he would have no chance to see the carton, is that true? A. No, I would say that very few people ever stay in the service station to wait for their car.

Q. That's what I mean, where the car is left for repairs? A. That's right.

Q. Aren't there occasions where people drive up to 553
the station and do not leave their car for repairs but want a spark plug changed while they wait? A. It is very seldom. Once in a while you will have a person come in with a miss and they will wait for you to take the spark plug out.

Q. When they have a miss, do they ordinarily tell you to change all of the spark plugs? A. No.

Q. Do they sometimes? A. Not when you take them out and observe them. If they don't look good and they need replacement then you replace all of them.

Q. What I am interested in is this, aren't there some 554
customers who because of one or two misses in the engine, decide to change the entire set? A. No.

Q. That never happened to you? A. It is very seldom they ever do that. They generally take the mechanic's opinion on it as to whether they need a whole set. If there is one spark plug missing—with that one missing sometimes the rest of them are no good either.

Q. In your particular service station, your mechanic would not try to sell a whole new set of spark plugs? A. That's right, that is our policy.

Q. But from your experience there are garages where an effort is made to sell as many plugs as possible? A. 555
People who are merchandising stuff, they are accustomed to doing whatever they want to, I cannot answer that question.

Q. When you sandblast off these deposits on some plugs, you just put the plug back in the motor, do you? A. No, we buff them with a wire brush, before we observe the plug, after we sandblast, to see how much porcelain is taken off in blasting.

Q. Then the sandblast does take off some porcelain? A. Yes.

556 Q. Sometimes? A. Yes.

Q. It would depend on the skill in which the sand-blasting is done? A. And also the material that you use for an abrasive and the time you leave it under pressure. There is a whole lot of things involved that would cause it to be taken off.

Q. In what percentages of instances in your garage do you spoil plugs by the cleaning operation? A. By cleaning them?

Q. Yes. A. Why, if a plug is carboned up very deep, the carbon is very deep on the insulator and you try to get that out, you spoil the plug.

557 Q. That gives you an opportunity to sell a new plug? A. Not necessarily an opportunity to sell it—the plug is no more good.

Q. Do you put it in the engine to find out if it isn't good? A. No, we discard it.

Q. Didn't you tell us before that the test of a spark plug is to have it actually work in an engine? A. Yes, but a heat range you cannot ascertain definitely—a miss and a heat range are two different things.

Q. The chief variation in spark plugs is in the heat range, isn't it? A. Yes, in relation to the heat range.

558 Q. Isn't that practically the only variation aside from the thread size? A. No, there is a variation in the thread size, too.

Q. But among plugs of the same thread size, the chief variation is in the heat range, is it not? A. Do you mean spark plugs nearly of the same size?

Q. Yes. A. Well, the insulator has control of your heat range, yes.

Q. Now, isn't it true from your experience that the desirable heat range in a particular car's plugs depends on the driving conditions and the age and condition of the motor? A. Yes.

Q. And in order to really know whether the heat range 559
of a particular plug is accommodated to that particular motor, you would have to try it, wouldn't you? A. Well, you would have to know the temperature that the motor is running at, whether it is running warm or cold or whether the carbureter is bad, there is a lot of things involved that is detrimental to the heat range of a plug.

Q. So many things are involved that the only way that you, as a practical man, can determine whether a particular plug is suited to a particular motor is to try it, isn't that so? A. You cannot put a spark plug in until it has been proven to be scientifically perfect. After the porcelain is taken off so far although it may last fifteen days 560
or thirty days under certain operation conditions, that is not long enough to warrant putting it back in the car.

Q. Who make those scientific researches? A. All of the engineers of the different spark plug companies.

Q. Where did you hear about it? A. I read it through service manuals.

Q. In other words, you are recalling something that you read? A. That's right, I studied it.

Q. When is the last time that you read that? A. I took a course in motor tune-up in 1943.

Q. What you are saying is that practical experience 561
is what determines the efficiency of a spark plug in a particular engine? A. It does to a certain extent, it does.

Q. Have you found in your experience that after an automobile has begun to pump oil, for example, that the spark plug that functions best in that car is not the same spark plug that functions best when the car is brand new? A. That's right.

Q. And have you found that a driver who drives his car fast and gives it severe service would do better with a different spark plug in the same make and model— A. That's right.

562 Q. (Continuing) and year and make of the car as against another driver who drives like an old lady? A. That's right.

Q. And again the only way you can really be sure of what would be the best spark plug for those two drivers is by actual performance in the engine, isn't that so? A. That's right.

Q. You have heard the expression "reconditioned spark plug", haven't you? A. Just through Mr. Schaffer, that's all. I never had any connections with it—only one time about 1932.

563 Mr. Hood: That is all.

Re-direct Examination by Mr. Schaffer:

Q. How do you tell what type of Champion plug to install in an engine? A. Through the Champion size chart or the service manuals,—there is a manual that tells the various spark plugs for the various different motors. Champion makes a chart and so forth.

Q. You make no actual test of engines in a running condition to tell whether or not a certain plug is the most efficient for that type of engine, do you? A. Why, no, we
564 don't have no dynamometer. I mean, we do not make a study of putting a certain plug in a car and then ascertaining whether that plug is the best plug for the car or not, we take the manufacturer's word for it.

Q. So that when you testified that the test of whether a spark plug is good or bad for a car is the actual running of the car, I take it that you are not testifying to your own testing or your own experience, am I correct in that? A. Not in a new spark plug—I don't quite get that question.

Q. All right. I will ask it over. With respect to new 565
spark plugs, you put in the plugs recommended by the manufacturer, is that correct?

Mr. Hood: I object to the question as leading.
The Court: He is merely repeating the witness' testimony, Mr. Hood.

Q. Is that correct? A. That's right.

Q. Do you have any means of ascertaining whether or not the plug which you so installed is efficient in its operation? A. Only by road testing the car, that's about all, until it comes back and you then take it out again and 566
observe it.

Q. What about fuel consumption? A. Fuel consumption in relation to what, to the performance of the car or the life of the plug or what?

Q. In relation to the mileage on the gasoline per gallon? A. Well, naturally, if you don't have good spark plugs, you run into gas consumption.

Mr. Schaffer: That is all.

Re-cross Examination by Mr. Hood:

567

Q. Is this a size chart such as you use, Mr. Doyle (handing witness chart)? A. We use more——

Mr. Schaffer: Referring to what?
Mr. Hood: A size chart.
The Witness: Referring to what, to the——

Q. Is that such a size chart as you use? A. To ascertain what spark plug was used in a car—we have more of a concise form, a smaller one.

568 Q. That paper that you hold is a size chart, is it not? A. Yes, that's a size chart.

Mr. Hood: I offer it in evidence.

(The above Size Chart received and marked, "Defendant's Exhibit E.")

* * * * *

Q. When you have installed Champion spark plugs, Mr. Doyle, do you ever reset the gap? A. We check them when they take them out of the box, just to check and see that there is no miss up on the gap.

569 Q. Doesn't their size chart tell you to reset the gap? A. No, there is a packing slip in the box and it says that this plug is set for so-and-so.

* * * * *

NORMAN KLEIN, called as a witness on behalf of the plaintiff, was first duly sworn and testified as follows:

Direct Examination by Mr. Schaffer:

Q. Where do you reside? A. No. 271 East 197th Street, Bronx.

570 Q. What is your occupation? A. Auto mechanic and owner of a supply store—service.

Q. What is the address of your place of business? A. No. 2956 Jerome Avenue, Bronx, New York.

Q. How long had you been an auto mechanic, Mr. Klein? A. Thirty years.

Q. How long have you operated your own place of business? A. Twenty years.

Q. You operate, I believe you told me, what is known as a one-man shop, is that correct? A. That's right.

Q. You are the owner of the shop and also the mechanic? A. That's right. 571

Q. Now, is there any particular work you do or any service that you render in connection with automobiles? A. Service, maintenance, tune-up of motors and so forth, lubrication and so forth.

Q. Do you have anything to do with the ignition systems in automobiles? A. Yes, that is in the course of the tune up work.

Q. And you also carry a line of spark plugs? A. Yes, sir.

Q. What brand? A. Champion.

Q. And in the course of your tune up work, you have occasion to replace spark plugs with new ones? A. Yes, we do. 572

Q. How many spark plugs do you sell a year in that fashion? A. Approximately twelve to fifteen hundred a year.

Q. And what are some of the common causes or defects which you find in spark plugs which you discard? A. Burned electrodes—that would be the most—or cracked porcelains, that's all.

Q. How about the condition of the firing end of the insulator? A. It would be the electrodes—oh, the insulator?

Q. Yes. A. An insulator, if it is cracked, they are junked. 573

Q. Do you ever find an insulator to be worn away? A. Yes, we have.

Q. So that the shape of it has been changed? A. Yes, we have.

Q. What do you do with those spark plugs? A. Discard them.

Q. Do you also sell spark plugs over the counter? A. Yes, we do.

574 Q. How does the volume of over-the-counter sales compare with sales by installation in the engine? A. I didn't hear that.

Q. How does the volume of over-the-counter sales of spark plugs compare with sales of spark plugs by installation in the engine—which is greater? A. The one in the shop.

Q. By installation? A. By installation in the service station.

Q. Do you make any charge for installing a new spark plug? A. No, sir.

575 Q. Have you made any observations in connection with your sales of spark plugs which are installed in cars as to whether or not the car owner or customer sees the carton in which the plug is shipped? A. If it is in the service station, he very seldom sees the carton of the spark plug.

Q. Why is that? A. Because he usually leaves the car for servicing and when he does, he usually goes away.

Q. Do you ever have any occasion to clean spark plugs and replace them in the motor? A. Yes.

Q. Can you tell us briefly what you do when you clean a spark plug? A. We take the plug out of the car and

576 put it in the sandblasting machine.

Q. For how long? A. Oh, a second or so. We regap them if they are good and put them in the car. If the electrodes are burned, we replace the plug.

Q. How about the condition of the insulator, do you also examine that? A. Yes.

Q. What do you do with respect to that? A. Well, depending on the condition which we see there.

Q. But that is a factor which you take into consideration in determining whether or not the plug should be thrown away, is that correct? A. That helps.

Q. Do you sell any reconditioned or rebuilt spark plugs? A. No, I do not. 577

Q. Have you ever? A. No, sir.

Q. Have your customers ever called for a rebuilt or a reconditioned spark plug? A. No.

Q. You have no requests for them? A. No, sir.

Q. When you install or have occasion to install a new Champion plug in an automobile, what do you do about the gap on that plug? A. I check the gap with the specifications for that particular motor and set them to that specification.

Q. Isn't it true that you also find the gap——

578

Mr. Hood: I object to counsel leading the witness.

The Court: Don't lead the witness.

Q. What do you find with respect to gaps on Champion spark plugs? A. Well, if the plug is for a particular car—some settings is different than others. Some are set directly for that particular car.

Q. Do you have on hand at the present time a stock of junked or discarded plugs? A. Yes, I have.

Q. And you are a car owner yourself? A. Yes, I am.

Q. And did you ever try to use any of those plugs for your own car? A. No, sir, from those junked plugs, no, sir. 579

Q. What kind do you use in your own car? A. Champion spark plugs.

Q. New ones? A. New ones.

Mr. Schaffer: That is all.

Cross-Examination by Mr. Hood:

Q. How long have you handled Champion plugs, Mr. Klein? A. Twenty years.

580 Q. And I suppose in these times you consider that a valuable agency? A. Yes, I do.

Q. And your relations with the Champion people and their representatives are friendly? A. No, I would not say that, they are not too friendly. I mean, outside of business relations, that's about all.

Q. Well, how did you hear about this lawsuit? A. He came in with Mr. Kaplan and questioned me in reference to different spark plugs and I showed him——.

Q. Did you receive any subpoena to come here? A. No, sir.

Q. Are you being paid for your testimony? A. Yes, sir.

581 Q. How much are you being paid? A. He did not give me any specific amount.

Q. Do you have any instrument with which you reset the gaps in a plug? A. Yes.

Q. And what kind of an instrument is that? A. It is a Champion circle gauge and a Cornwall gauge and an Auto-Lite gauge.

Q. You have never tested the defendant's reconditioned plugs in any car, I suppose? A. No, I have not.

Q. You are familiar with the term "reconditioned plugs", aren't you? A. Yes, sir.

582 Q. Does that mean a plug that has been cleaned and repaired and restored somewhat for usefulness? A. That's right.

Q. Is it your understanding that reconditioning is done through the removal of deposits by sandblasting and by restoration of the spark gap? A. That helps, but that does not always do the job—just by sandblasting.

Q. I mean, generally the idea of what is known as reconditioning is cleaning and restoration of the gap, isn't that so? A. Yes, sir.

Mr. Hood: That is all.

583

Re-direct Examination by Mr. Schaffer:

Q. Mr. Klein, what arrangement did we make with respect to pay? A. We did not make any arrangement outside of that I would be paid for my time.

Q. Do you ever remove any portions of the electrodes— A. No, sir.

Q. (Continuing) from spark plugs that you service? A. You mean porcelains?

Q. Portions of the electrodes from spark plugs that you service? A. No, I do not. I don't get that question. Did you say porcelain or portions?

584

Q. My question is whether you ever remove any part of the electrode in connection with your servicing operations of spark plugs? A. Oh, no, sir.

Mr. Schaffer: That is all.

Re-cross Examination by Mr. Hood:

Q. Do you possess welding equipment in your shop? A. Yes.

Q. Do you possess spark plug wire? A. Yes.

Q. And have you ever welded new side electrodes on spark plugs? A. No, sir.

585

Q. Then you don't know personally how it is done, do you? A. Yes, I know how it is done, I know that it is welded together.

Q. But you have never personally experimented to see how well you could weld a spark plug wire? A. No, not personally.

Q. What do you use spark plug wire for that you have in the shop? A. For ignition systems.

Q. I am not referring to the wire that runs from the distributor to the top of the spark plug, I am referring

586 to the wire that is used for the electrodes? A. Oh, I see, I don't use that.

Q. You don't have any of that in the shop? A. No, sir, I haven't got any of it in the shop.

Mr. Hood: That is all.

(Witness excused.)

Mr. Hood: Your Honor, may I ask a couple of questions of Mr. Doyle?

The Court: You cross-examined Mr. Doyle once. On what point do you wish now to ask questions?

Mr. Hood: On this matter of welding.

587 The Court: I think you are going into your own case. However, go right ahead.

GEORGE DOYLE, recalled, testified further as follows:

By Mr. Hood:

Q. Mr. Doyle, do you do any welding in your shop? A. Gas welding.

588 The Court: (To witness) Do you do any welding on spark plugs?

The Witness: No.

The Court: That's all.

Mr. Hood: One further question.

The Court: You said that is what you recalled him for.

Mr. Hood: Just one more question.

The Court: What do you want to ask him?

Mr. Hood: Whether the wire, the welding of spark plug wire does or does not require a special welder.

The Court: He says he doesn't do it. That is all, Mr. Doyle. 589

(Witness excused.)

BRACE H. SIBLEY, resumed the stand and testified further as follows:

Direct Examination (Continued) by Mr. Owen:

Mr. Owen: At this time, may it please the Court, I offer in evidence Plaintiff's Exhibit 18, a chart offered on the motion for preliminary injunction and at that time marked Exhibit 13. 590

Mr. Hood: I object to this as a drawing not identified or shown to be correct in any way.

The Court: I will take it and if you can prove on cross-examination that it is not correct, or by your own witness that it is not correct, it will then be rejected.

How is that entitled, Mr. Owen?

Mr. Owen: It reads: "A drawing showing changes from original dimensions found to be present in defendants' plugs." 591

The Court: Of course, you will have to establish the correctness of that.

Mr. Owen: Yes, your Honor. I might explain that in the lefthand column of this chart is a figure of a new Champion plug, the first one being the new Champion H-10 plug and the next three being the new Champion #7 plugs, and in the three columns to the right are illustrations, cross-sections, of three of the plugs which were sold by the

592 defendant as Champion H-10 plugs and those are identified by Mr. Sibley's mark as A-2, A-3 and A-7.

The Court: And those are all comprehended in Plaintiff's Exhibits 1, 2, 3 and 4.

Mr. Owen: In Exhibit 1, and then in the next three columns—in the second horizontal column, there are cross-sectional illustrations of three plugs sold by the defendant and which Mr. Sibley has identified as B-4, B-7 and B-9, and in the next lower row are the plugs which Mr. Sibley identified as C-3, C-5 and C-7, and those are in Exhibit 3, and the B plugs are in Exhibit 2, and then in the
593 last horizontal column are illustrations of plugs D-1, D-4 and D-8, which are part of Exhibit 4.

The Court: Don't you think the proper practice would be for you to have this marked Plaintiff's Exhibit 18 for Identification and then proceed to establish its correctness and then offer it?

Mr. Owen: I will do that, your Honor. I ask now that it be marked for identification.

(The above drawing received and marked, "Plaintiff's Exhibit 18 for Identification.")

By Mr. Owen:

594 Q. Mr. Sibley, have you examined the drawing or chart which has been offered for identification as Plaintiff's Exhibit 18? A. Yes, sir.

Q. And have you compared the various figures on that drawing with the spark plugs which they purport to represent, first, in the vertical left hand column, have you compared the first of those plugs with the new H-10 plug and have you compared the other three plugs with the new #7 plugs? A. Yes, sir, it is a facsimile drawing, double scale.

Q. And how do those drawings compare with the original H-10 and #7 new plugs? A. They are drawn the same as the original. 595

Q. Have you compared these drawings with the plugs which have been offered in evidence as part of Exhibits 1, 2, 3 and 4 and which you have identified as A-2, A-3, A-7; B-4, B-7 and B-9; C-3, C-5 and C-7; and D-1, D-4 and D-8? A. Yes, sir, the numbers you refer to are outline sketches of the conditions found in the particular plugs as identified.

Q. And have you personally compared those plugs with the drawings of them in this exhibit? A. Yes, sir.

Q. And how do you find them to compare? A. The drawings are the same as we found the plugs, the outline drawings. 596

Q. Now——

The Court: Do you wish to cross-examine the witness on the accuracy of the drawings, Mr. Hood? Mr. Owen, I presume, is about to offer it.

Mr. Hood: Not at this time, your Honor, but I may on my general cross-examination.

The Court: I supposed it would be offered now and I thought it may dispense with that part of your cross-examination. 597

Mr. Hood: I do not think the cross-examination will develop anything to prevent it going into evidence.

The Court: Then there is no objection to Plaintiff's Exhibit 18?

Mr. Hood: No.

Mr. Owen: I offer Plaintiff's Exhibit 18 for Identification in evidence.

(Exhibit 18 for Identification received in evidence.)

598 *By Mr. Owen:*

Q. At the time of the adjournment on last Thursday you were testifying regarding data contained on Exhibit 16 and as I recall you had testified regarding the relation of the side wire to the center wire and as to the condition of the center wire in the plugs which are in evidence as Exhibit 1. Now, will you please continue with your testimony as to the data contained on this Exhibit 16 and what that data shows with respect to the condition of those plugs, which are in evidence as Exhibit 1? A. Which chart is #16?

599 Q. That is the H-10. A. That is the one which shows the plugs identified as A-1 to A-10 inclusive?

Q. That is right. A. I found that the condition of the center wire of the seven H-10A's contained in this exhibit were—three of them were burned slightly and three of them were burned badly.

The one J-9 contained in that exhibit, the center wire was burned badly.

We found there were new side wires or new ground electrodes welded to each of the ten plugs, numbered from 1 to 10 inclusive.

Q. I believe you have already testified regarding the 600 gaps, so you may skip the next column and take up the data regarding the tip of the core to the end of the center wire? A. An examination of the ten plugs showed that the dimension, the distance tip of core to end of center wire of the seven H-10A's, two of these dimensions were within our limit in specifications and five of them were not. In other words, five were wrong.

Two H-10C's contained in that box, one was O.K., within the specification, and one was wrong.

The J-9 contained in that box, this particular dimension was wrong.

Q. Now, will you take the next column, the distance from the tip of the core to the end of the shell? A. The dimension distance tip of core to end of shell of the seven H-10A's contained in Number One, two were O.K. and five were wrong. 601

The two H-10C's contained in this exhibit, two were wrong, and the one J-9 contained in Exhibit 1, that was wrong.

Q. Then the next column is the distance end of shell to end of center wire. What did you find in that regard? A. In the dimension, end of shell to end of center wire, of the seven H-10A's, four were O.K. and three were wrong and of the two H-10C's two were wrong and the one J-9, that was wrong. 602

Q. What did you find to be the condition of the semi-petticoat end of these ten plugs? A. The condition of the semi-petticoat end of the ten plugs showed that the petticoat feature was completely destroyed.

Q. Will you explain the function or functions of this feature of a Champion spark plug? A. The semi-petticoat is the lower or extreme end of the ceramic insulator and it is so shaped that the ceramic is brought out to a narrow edge and this particular shape has the function and tendency that as oil is deposited on the insulator, that oil might run down and it would drop off rather than drip directly in between the two electrodes and short the gap. 603

The function and feature of the petticoat also is to control the heat condition in that the narrow portion of the semi-petticoat will operate at a higher temperature, due to its thin wall section and will burn off the accumulation or have a tendency to burn off an accumlation of carbon and fuel deposit.

Q. Do all of the new Champion spark plugs have this semi-petticoat end? A. All of the new automotive type

604 Champion spark plugs have a semi-petticoat or petticoat feature.

Q. How long has that been the fact? A. For over ten years. Of course, I am referring to the manufactured plug.

Q. What do you mean by that? A. We have not built any.

Q. You mean you have not built any for the last ten years which did not have a semi-petticoat end, is that what you mean? A. Yes, sir.

Q. Now, I notice the column headed here "Miscellaneous". You may make any comments regarding that that
605 you care to. A. Well, we find that the hexes of the shell were stamped "Renewed". It was not exactly legible in every case as the chart shows under the Miscellaneous heading.

Q. Did you find all of the shells to be covered with paint? A. The entire ten plugs in this exhibit, the shells had been painted black. We found one plug, the one identified as A-9, the Champion decoration was not legible and we found that the ten plugs did not very well fit the regular go thread gauge due to the upset of the new welded wire and we found that four of those plugs, iden-
606 tified as A-5, A-6, A-7 and A-9, would not screw into a standard fourteen millimeter cylinder head.

Q. Why was that, on account of the upset of the weld? A. The flash of the weld had come over on the side of the thread.

Q. And the effect of the welding on of a new side electrode was to distort the thread at that portion?

Mr. Hood: I object to counsel leading the witness.

The Court: He is asking him if that is what he means, he is interpreting. On that ground, I will

overrule your objection and I will allow the wit- 607
ness to say if that is what he means.

Mr. Hood: Exception.

The Witness: No, it was not distortion due to welding, it was more of an amount of the flash from the electrode weld—the amount of metal that flowed during the welding operation.

Q. The molten metal occasioned by the welding operation flowed into the thread? A. No, just flowed over beyond the end of the shell so that it made the diameter there, larger.

Q. And right on that point, what was the condition in 608
that regard of the other thirty plugs which you examined, Exhibits 2, 3 and 4? A. There were 28 that did not fit the thread gauge and there were two out of the 30 that would not fit into the standard cylinder head.

Q. Now, referring again to Exhibit 16, relating to the plugs in evidence as Exhibit 1, what did you find the condition of the gaskets which came with those ten plugs to be? A. I found the ten gaskets furnished with the ten plugs were used gaskets. Some were gaskets originally furnished by the Champion Company and some were gaskets that we do not furnish but in each case they were 609
used and had been flattened due to having been installed in an engine, or compressed.

Q. And what would you say as to the condition of those gaskets affecting the tightness with which the plug could be installed in an engine? A. I would say it would be pretty difficult to reinstall those plugs with those gaskets without some amount of leakage past the gasket.

Q. You have called attention to the fact that one of the ten plugs which were contained in this box, Exhibit 1, was originally a J-9 plug and that the other nine were

610 originally H-10 plugs. I wish you would explain when the J-9 plug which you found in that box was manufactured or when that type of plug was discontinued? A. This particular type J-9, known as J-9-64A was manufactured in 1936, 1935 and 1936 and was discontinued sometime early in 1937.

Q. Do you now make the J-9 plug? A. Yes, sir.

Q. And is it different from this J-9? A. The J-9 that we make today is entirely different than the J-9 in this exhibit.

Q. Will you explain how you came to adopt the same type number for two different types of plugs? A. It was
611 necessary to bring out a plug with a new heat range, one slightly colder than our type J-8 and of course we used a simple numbering system and at the time we were ready to bring out this slightly colder plug, the J-9 was not being used, the J-9 plug had been obsolete for several years and we had a check made on our stocks and there were no old J-9's available and none showed up on our sales stocks from the field, our jobbers' stocks, so we came out with the new plug and called it the J-9 so that it would fit properly into our heat range system.

Q. Will you refer to Exhibits 16A, B and C, which I understand contain data with reference to the plugs in
612 Exhibits 2, 3 and 4, all of them having been originally Champion #7 plugs and for that reason I will ask you to consider those thirty plugs as one instead of taking each box of ten separately.

Mr. Owen: I do that, your Honor, to save time.
The Court: Those were all originally #7 plugs?
The Court: What were they?
The Witness: No, sir.

The Witness: They are #7, #7 Ford, which is the same as #7 except for the decoration printed on the insulator, and there are some #7 commercials. 613

Q. Are the #7 and #7 commercial plugs of the same dimensions at the firing end? A. No, sir.

Q. To what extent do they differ? A. The center electrode of the #7 commercial plug is a larger size than the #7 and the side electrode is of a different size than the #7.

Q. Are the two plugs recommended by the plaintiff for use in different types of vehicles? A. No, sir. 614

The Court: They are not recommended for use interchangeably?

The Witness: No, sir.

Mr. Owen: That is what I meant in my question.

Q. Will you please now refer to your data on those thirty plugs. You have already stated what they were originally, that some were #7, some #7 Fords and some #7 commercials. Now, will you state what was the relation of the side wire to the center wire on those thirty plugs? A. The relation of the side wire to the center wire 615 in the thirty plugs was wrong in all thirty plugs.

Q. And what was the condition of the center wire in those thirty plugs? A. The condition of the center wire was that some were burned and others badly burned on all thirty plugs.

Q. What would you say, about half badly burned and the other half merely burned? A. Yes, approximately half of them showed burns and the other half badly burned.

616 Q. Now, what was the condition of the side wire in these thirty plugs? A. The condition of the side wire is that they had all been replaced with new welded flat side wires.

Q. And did the bends of those new flat side wires correspond with the bends of the new #7 Champion plug? A. No, sir, there was a different style of wire welded on or attached to the shell than the one that previously was used by Champion.

Q. Now, coming to the gaps of those thirty plugs, how many gaps responded to your requirements for the #7 plug? A. Do you want the thirty plugs or just a re-
617 port on the #7's separated?

Q. You may suit yourself about that, whichever you please. A. The twenty-five plugs of the #7 and #7 Ford, ten of them had gaps in accordance with the original specification and fifteen of them were not in accordance with the original specifications.

There were five #7 commercials mixed in these three boxes and two of those had the proper gap and three of them the gap was wrong.

Q. Now, will you give us the data with respect to the distance from the tip of the core to the end of the center wire on these thirty plugs, that is, as to whether they
618 corresponded with your specifications? A. An examination of the dimensions—distance, tip of core to end of center wire, in the #7 and #7 Ford, six of those were O.K. and three were wrong—I am referring now to just the one box—if you will take that off the record I will give you the recap for the whole lot.

Q. Do that. A. There were 25 #7's and #7 Fords contained in these three exhibits and 13 of them had the correct dimension and in 12 of them it was wrong and of the five #7 commercials this dimension was found to be O.K.

Q. What did you find with respect to the distance from the tip of the core to the end of the shell in those thirty plugs? A. As to the dimension, distance tip of core to end of shell, the #7 and #7 Fords, 25 of those were wrong and of the #7 commercials, five were wrong. 619

Q. You mean all thirty of them were wrong? A. Yes, sir.

Q. And what did you find with respect to the distance from the end of the shell to the end of the center wire? A. In these thirty plugs, under the dimension distance end of shell to end of center wire, #7 and #7 Ford, three were within the specification and twenty-two were wrong and of the #7 commercials, five were wrong. 620

Q. Now, I wish you would capitulate your testimony regarding these entire forty plugs in this respect: You have given four critical dimensions for each plug, one, gap spacing, two, distance from tip of core to end of center wire, three, distance from tip of core to end of shell, and four, distance from end of shell to the end of the center wire. Now, there are 160 such dimensions for the entire forty plugs. Will you please state how many of the possible 160 dimensions in these plugs were correct and how many were incorrect? A. There were forty-nine O.K. or correct in accordance with the specifications and 111 dimensions which were not in accordance with the specifications. 621

Q. Now, going on to the condition of the semi-petticoat end in these thirty plugs sold by the defendant as #7 plugs, what condition did you find? A. Of the forty plugs, it showed that thirty-three petticoats were completely destroyed and seven of them were partially destroyed.

Q. That is out of the entire forty plugs? A. Forty, yes.

622 Q. My question was directed to the thirty plugs but that is all right. A. Oh, excuse me.

Q. Now, under the heading of Miscellaneous, with respect to these thirty #7 plugs, what comments do you care to make? A. Well, the thirty plugs all had black painted shells. They were stamped "Renewed". Some of the stamping was not exactly legible.

There was one plug in the one box, in the one exhibit identified as B-7 that had no decoration or no Champion name or trade mark on the insulator.

The plugs, all or most of them, show a part of the original side wire had been cut off and was not filed
623 back smoothly or entirely all removed.

We found in the plug identified as C-7 that the words "Champion, Registered U. S. Pat. Office" part of the decoration had been removed from the core and was missing.

I think that is all.

Q. And referring now to the condition of the gaskets which came with the thirty plugs in Exhibits 2, 3 and 4, what did you find? A. We found that all of the gaskets in the thirty plugs were used, had been used or showed indications of having been compressed due to apparently
624 tightening the spark plug against the gasket. Some were compressed slightly and some were compressed completely and some of the gaskets were identified as gaskets that we originally furnished and others were not our make or use.

Q. I show you a copy of the Rohde patent #1852265 which was offered in connection with the motion as Plaintiff's Exhibit 12 and I ask you if you are familiar with that patent and with the feature which it covers? A. I am familiar with the patent and the feature that it covers, yes, sir.

Q. What is the feature of that patent? A. The feature 625
of that patent is particularly the shape or the contour of the firing end of the ceramic insulator and its particular shape that it has an enlarged section at the extreme end for a given or predetermined length and then the cross-section narrows down, which is called the neck, and that is of a given predetermined distance or length and the core again increases in size, to the selected size for spark plug use.

The heat that collects in the enlarged portion at the end and in attempting to be dissipated away has to go through the narrow portion or neck portion which naturally increases the temperature at that point and the 626
function is that that has a tendency to burn off carbon and fuel and also to retard the formation of carbon and fuel deposits at that point.

Q. Now, Mr. Rohde was formerly chief engineer of the Champion Company? A. That's right.

Q. He is now dead? A. Yes, sir.

Q. Does the shape of that insulator in the Rohde patent have anything to do with the heat range of the plug? A. Yes, sir, it has a great deal to do with the heat range of the plug in that the insulators are dimensioned with a predetermined length of the bulge section and the predetermined length of the end diameter of the neck section 627
and that entire surface, in following that contour, would be the dieelectric path of the insulator and if that length is changed it would materially affect the heat range of the plug and that would shorten—it would narrow the fouling range of the spark plug due to the fact that you would have less surface to become coated with carbon and fuel deposits, and of course that means that if it were in turn longer it could not dissipate the heat away as rapidly as it would otherwise and it would be a hotter plug.

628 Q. Which, if any, of the forty of the defendants' plugs had this patented feature when they were manufactured and sold by the plaintiff?

The Court: By defendants' plugs you are referring to what, Mr. Owen?

Mr. Owen: To the forty plugs which are in the exhibit.

The Witness: One J-9A, which is identified as A-8 and all the plugs identified as B-1 to B-10 inclusive and C-1 to C-10 inclusive and D-1 to D-10 inclusive.

629 Q. And what condition did you find this patented feature to be in in those thirty-one plugs which you have just identified? A. We found that they had all been shortened to some extent, some more than others, with the entire thirty-one plugs.

Q. In your opinion would this change which had taken place in these thirty-one plugs affect their function in a motor?

Mr. Hood: I object to that, your Honor, they had ample time to test these plugs in a motor and
630 did not do so. This man is not an engineer and I do not think he is qualified.

The Court: Do you wish to cross-examine him on his qualifications?

Mr. Hood: Yes, your Honor.

The Court: You may do so.

Examination by Mr. Hood:

Q. You are not a graduate engineer, are you, Mr. Sibley? A. No, sir.

Q. You are not a college graduate? A. No, sir. 631

Q. Did you ever attend technical high school? A. Yes, sir.

Q. You went, I believe for six months or a year at night? A. Yes, sir.

Q. And the course you took was mechanical drawing? A. Yes, sir.

Q. And that is the extent of your technical education, is it not? A. So far as schools are concerned, yes.

Mr. Hood: I renew my objection, your Honor.

The Court: (To witness) How long have you been plant manager of the plaintiff's plant? 632

The Witness: Since January, 1943.

The Court: And prior to that time?

The Witness: Prior to that time I was chief engineer from 1939 to 1943.

The Court: If the plaintiff is satisfied with this gentleman as a chief engineer I think the facts as to the methods of his obtaining his training does not in the least affect the quality of his training. He may know a great deal more about the subject than a college professor.

Mr. ~~Hood: It would~~ depend on the type of opinion 633 to be given, your Honor.

The Court: I haven't heard that yet. In my judgment he is amply qualified to give an expert's opinion.

Let me hear that question.

(Question read by the reporter as follows: "In your opinion would this change which had taken place in these thirty-one plugs affect their function in a motor?")

The Court: Are you finished questioning the witness, Mr. Hood?

634 Mr. Hood: Yes, sir, and I make the same objection, Judge.

The Court: Your objection is overruled.

Mr. Hood: Exception.

A. Yes, the change that has taken place in the shortening of the core in some of those plugs could very well affect the functioning of those plugs in a motor.

Q. And how would the functioning in a motor be affected? A. Over a period of operation, the center electrode—more of the center electrode being exposed, it would have a tendency to burn away and erode more rap-
635 idly and also the insulator, being shortened, that would shorten the fouling range of the spark plug and it would have less surface to become encrusted with the carbon deposit and fuel deposit which sometimes short out a spark plug and in exposing the center electrode, it may very well cause preignition in extremely heavy service or a hard pull, in hilly country, especially in operation in an engine where temperatures are reaching pretty much maximum.

Q. Would they affect the heat range—I think you did testify on that, however? A. It would affect the heat range. It would shorten the fouling range of the plug
636 due to the insulator being shortened.

Q. I do not recall whether I have asked you regarding the contour of the adjacent faces of these Champion spark plugs when they were manufactured, that is, the forty plugs in evidence as Exhibits 1, 2, 3 and 4 of the plaintiff. What was the relation between the sparking faces of those plugs when manufactured?

The Court: Are you speaking of the gap?

Mr. Owen: The faces of the electrodes which form the gap, your Honor.

The Court: Yes. 637

The Witness: The dimensions showing the relation of side wire to center wire were wrong. In that term we take into consideration whether or not the end of the center electrode and the surface of the side electrode are parallel. In some cases the end of the center wire was rounded over so that the two wires were not parallel and in some cases the end of the side wire was shorter than standard and in other cases the end of the side wire was longer than standard and in some of the plugs the center wire was at an angle, either burned at an angle or had been cut back at an angle, so with 638 that explanation the entire forty plugs, in our estimation, were wrong, that is, they were not the same as the new plugs manufactured.

Q. You have explained a number of changes in dimensions in these forty plugs from what they were when they were manufactured and sold by the plaintiff, basing your testimony, as I understand, on visual inspection.

I will ask you if there are likely to be any hidden defects in these forty plugs which are not apparent from visual inspection? A. There can be hidden defects in any spark plug. 639

Mr. Hood: I object to that as purely speculative.

The Court: I think so. I think if the witness has tested them and found defects which were not observed visually he can state that but I think unless you lay such a foundation his testimony as to what might possibly be the fact is not going to help me very much.

Mr. Owen: I will withdraw the question, your Honor.

640 Q. Now, testimony has been offered to show that the side electrode in these forty defendants' plugs is not the same as that originally used by plaintiff in those plugs. I will ask you what importance attaches to the quality of the wire used as electrodes in Champion plugs? A. It is very important, the quality; it must be good and give the longest life possible in the plug and we use material that will not burn away and oxidize too freely.

Q. Has the plaintiff conducted experiments with various wires and alloys for use as electrodes? A. Yes, sir.

Q. To what extent? A. We have carried on a research program continuously since I have been with the com-
641 pany, in our own laboratory and working with several wire manufacturers, and we have sponsored research programs at universities and institutions for the development of a better material and better process material.

The Court: (To witness) You are confining your answer to the wire?

The Witness: Yes, sir.

Q. And does the plaintiff in its manufacture of Champion spark plugs use or take advantage of the results of these experiments which you have conducted and which
642 are conducted in other laboratories and if so, how do you take advantage of it? A. Well, anything we find that is an improvement, we immediately adopt it and use it.

Q. Have you examined or had examined or analyzed the wire which defendant had on these forty plugs as the side electrode? A. Yes, sir.

Q. How did that analysis compare with the analysis of the wire which you originally used and which you are now using in your side electrodes?

Mr. Hood: I object to that, unless the witness made the analysis. 643

The Court: He may be familiar with it or he may have supervised it.

(To witness:) Did you have an analysis made?

The Witness: Yes, sir, I had an analysis made of one side wire from one of the plugs.

The Court: Who made that analysis?

The Witness: The analysis was made in our own chemical laboratory.

By Mr. Owen:

644

Q. By a man accustomed to making such analyses? A. Yes, sir. I have—I don't know whether I have that report in this file but I have it here some place. Yes, here it is (witness producing paper).

Q. How does the report——

The Court: The next question is, what is the result of that analysis and how does one compare with the other.

Mr. Hood: I make the same objection, your Honor.

The Court: I will allow him to state the result of the analysis. 645

Mr. Hood: Exception.

The Court: (To witness) If you know.

The Witness: Yes, sir. An analysis of the nickel wire was very similar to our wire with one exception. We use—the material is known as zirconium,——

The Court: That element was lacking in defendants' wire, is that it?

The Witness: Yes, sir.

646 *By Mr. Owen:*

Q. And you say that element is present in your electrode wires? A. Yes, sir.

Q. And has been for some time? A. Yes, sir.

Q. For how long? A. We have used it over twenty years.

Q. Was there anything else in the defendants' wire which did not compare with the plaintiff's wire? A. It was slightly higher in manganese but in general it was what you might call an ordinary run of nickel electrode material.

647 Q. Did the report show anything regarding the grain size of the wire? A. The grain size was found to be of a different size than Champion uses. The grain size of the material is controlled in the manufacturing process.

Q. In your opinion, would defendants' wire be as efficient as a spark plug electrode as plaintiff's wire?

Mr. Hood: I object on the same ground, your Honor, the witness is not qualified to answer a question of that kind, he is not an expert on metallurgy.

The Court: I suppose the differences testified to
648 as between plaintiff's and defendants' wires is the best indication that plaintiff regards its own wire as better.

Perhaps there ought to be something as to whether a spark plug equipped with defendants' wire is as efficient in functioning as to that element. That would be a subject for test.

(To witness): Have you tested this wire of defendants to determine its relative capacity to function as compared with that of the plaintiff's?

The Witness: No, sir.

The Court: I guess that excludes the question, doesn't it, Mr. Owen? 649

Mr. Owen: I think so, your Honor.

Q. Something has been said regarding a spark plug cleaner which the plaintiff markets and some literature was introduced to show that the plaintiff represents that as a spark plug cleaner. Have you any literature of a later date on the spark plug cleaner? A. I do not know that I know exactly what has been introduced.

Q. Will you produce what you have? A. I do not know whether it is later or not. I have one here that is furnished with the cleaner; in fact these three pieces here 650 are furnished (witness producing literature).

Mr. Owen: I offer these three pieces of literature in evidence as a plaintiff's exhibit.

(The above literature on cleaner received and marked, "Plaintiff's Exhibit 19, 19-A and 19-B.")

Q. Have you testified, Mr. Sibley, regarding the meaning of the term "a balanced set of spark plugs"? A. Have I testified?

Q. Yes; will you explain what you understand that term to mean? A. Well, a balanced set of plugs,—I 651 think that was mentioned last Thursday, too—a balanced set of plugs, all approximately the same age, the same condition, more especially the same type number and of the same heat range and all with the same or proper gap.

Q. I show you Plaintiff's Exhibit 6, which is one of plaintiff's spark plug cartons and I ask you to examine it and state how long the plaintiff has used cartons like that or similar to it? A. Plaintiff has used cartons similar to this one ever since I have been with the company.

652 Q. Similar in what respect? A. Well, this same style and in later years the design on the side and on the front were slightly changed.

Q. How about the color? A. And the color was changed a little bit, we used a little darker color, but in color we have never been able to absolutely control the exact shade.

Q. But you have used a blue color of that shade? A. Yes, sir, for over twenty years.

Q. I call your attention to the words "Guaranteed Dependable" and I ask you how long those have been present on your cartons? A. We have used that over
653 twenty years.

Q. Have you had any experience in indenting words or letters into the hex portion of the spark plugs? A. Yes, we have had experience in stamping numerals and letters of identification in the hexes of spark plugs.

Q. Can this be done without injury to the plug? A. Yes, sir.

Q. Have you had any experience in removing trade marks and type marks from the insulators of Champion plugs? A. Yes, we have had experience in removing the decoration.

654 Q. What experience have you had in that connection?

The Court: Isn't this repetitious?

Mr. Owen: It is to a certain extent, your Honor, but this testimony will go to the removing of markings from completed plugs, whereas Mr. Royal's testimony was regarding removal of decorations from the insulator alone.

Q. (Question repeated.) A. We have had a lot, quite a lot of experience in that. We are called upon sometimes to remove——

The Court: (To witness) What have you done about it? 655

The Witness: We have removed the decoration.

The Court: How?

The Witness: With hydrofluoric acid.

Q. You saw Mr. Royal remove the decorations from a Champion insulator the other day here on the witness stand? A. Yes, sir.

Q. Do you follow a similar procedure? A. Somewhat similar except in our lab we use a solution of one part water and one part hydrofluoric acid—I believe that is somewhat a stronger solution than they have used. It 656 will operate a little bit more rapidly.

The Court: (To witness) Do you use hydrofluoric acid?

The Witness: Yes, sir.

The Court: What is the proportion?

The Witness: One part tap water and one part hydrofluoric acid. Our system is to pour out a very small amount of this acid in a little wax receptacle and we use very much the same type swab that Mr. Royal used. We collect a very small amount of that solution on the swab and we apply 657 it directly on the decoration and after we have applied it on ten cores then we in turn take the first core and hold it under running water and then wipe it off.

Q. And you repeat that for each of the ten plugs? A. For each of the ten plugs, and then we start off with another core and we run ten like that and that little time being there gives you the time for the acid to completely dissolve the ink.

658 Q. You are testifying regarding the removal of markings from completed plugs, aren't you? A. That is correct. I am testifying about removing part of the decoration of a completed plug. We never have occasion to remove all.

Q. What occasion do you have to remove part of a decoration from a completed plug? A. We have previously shipped a great many plugs to France and those insulators carry a special decoration or identification for shipment and sale in France and sometimes there were cancellations of orders and we had plugs on hand and the plug, being the same type of plug that we sold here,
659 we would remove that part of the decoration so that the plug was saleable in the United States.

We also have another occasion to remove possibly the identifying number or the type number from the insulator. That was a few years back when we used the same insulators for two-piece plugs. We might have a stock of insulators and we needed to pack them just as a spare insulator with a center wire for shipment or sale, and those insulators are always packed without the number because we have used the same core in two or more types of plugs and we would not want to ship an insulator with number "1" on it for a man who might come in the store
660 for a number "8". We would pack it without number and in these particular insulators, we would remove that part of it.

Q. To what extent would you say that you have removed portions of these decorations from completed plugs? A. Oh, possibly ten thousand pieces per year. Just a small quantity.

Q. Do you use especially trained employees for that service? A. No, sir, the type of employees that we are obliged to use are usually always new employees because

with our labor set-up, the employees have seniority and the older employees have choice jobs, so the ones that have the jobs I have just described, naturally when we are not running all the time and what we term miscellaneous job—we might do a few today and a few tomorrow and then we may not have any more to do for a week—those employees are new and unskilled. They are, of course, cautioned about the use of the acid and are shown how to do the operation and they are thoroughly instructed and then they are watched for a while to see that they are doing it properly and that they know how to do it. 661

Q. Have you ever received any complaint of any kind with respect to the plugs or insulators from which the markings have been removed in whole or in part? 662

The Court: Arising from the removal of the decoration, you mean?

Q. Arising from the removal of the decoration? A. No, sir.

Mr. Owen: The witness, your Honor, is in a position to make an estimate of expense of removing these marks and painting the metal parts and so forth and stamping, the stamping of a word in the hex, if you care to hear the testimony? 663

The Court: Is that part of plaintiff's case?

Mr. Owen: No, I think not.

The Court: So do I.

Mr. Owen: You may examine.

Cross-Examination by Mr. Hood:

Q. Mr. Sibley, did I understand you to say that during the entire time you have been connected with the

664 company, the company has put out its spark plugs in dark blue cartons? A. No, they have used cartons similar to the one I saw in the exhibit and ones like that, blue ones, for the last twenty years at least.

Q. And the color has been blue? A. Part of the cartons that they put out have been blue for twenty years.

Q. What has the other part been? A. We have had red cartons.

Mr. Owen: May I interrupt just long enough to offer that Rohde patent in evidence?

The Court: Yes.

665 Mr. Owen: I offer in evidence at this time patent to Rohde #1852265.

(The above patent received and marked, "Plaintiff's Exhibit 20.")

By Mr. Hood:

Q. Mr. Sibley, the center electrode wears away in use, doesn't it? A. Yes.

Q. It does not grow in size as the result of use, does it? A. No.

Q. Can you explain to his Honor why, if these drawings are correct as you say, the plug designated as A-7 666 on Plaintiff's Exhibit 18 shows a center electrode that is longer than the new plug? A. I don't have an A-7——

Q. Will you just take a look at it, please, so that there will be no misunderstanding (handing witness drawing)? A. The A-7 is the H-10A plug which has a longer projected center electrode than this one here (indicating).

Q. You did not make these drawings yourself, did you? A. No.

Q. Were they made from microphotographs? A. No, sir.

Q. Were they made from cross-sections? A. No, sir. 667

Q. Then these cross-sections are only estimates of how the cross-section would appear if there were cross-sections? A. I can answer that by saying that the cross-section, the upper part is in accordance with the standard plug. The cross-section of the firing end has been made from the dimensions found on the plugs which we measured.

Q. With the plugs assembled as they are and using only visual inspection, it is impossible to get accurate relative dimensions as shown on this cross-section, isn't it? A. I beg your pardon. They are not dimensions, that is a facsimile of contour and shape and projections and 668 so forth of the drawing.

Q. Will you look at the firing end of the plug—looking at the firing end of the plug, you cannot see all of the portions of the plug as to which dimensions are shown here, can you? A. We were able to measure those shown there.

Q. And by "we", whom do you mean? A. I and my assistant.

Q. What did you use to measure the plugs? A. A scale, a metal scale.

Q. You could not get a metal scale up where this core 669 is, could you (indicating)? A. No, sir. The upper part is normal which compares with the new print. It is the lower end where the dimensions are abnormal.

Q. Where did you apply your scale to make up the drawing, such as A-7? A. Right from the firing end.

Q. Well, the only portion of these drawings which are actually to scale are the ones that are below the shells, isn't that true? A. No, sir, you can measure the distance that the insulator is up in the shell by means of a little narrow scale.

670 Q. Isn't it possible that errors could creep in in the use of just an ordinary scale or ruler in making measurements on as small an object as that? A. It is possible that errors can creep into anything that anyone does but these were measured and checked and rechecked.

The Court: Is there any objection on the part of the plaintiff in giving the defendant an opportunity to compare and compile a comparative chart showing the measurements of these spark plugs which are in issue?

Mr. Owen: No objection whatever, your Honor.

671

By Mr. Hood:

Q. Mr. Sibley, I direct your attention to the size chart which is Defendants' Exhibit E and to the eight plugs featured in facsimilare at the top of the chart and to the statement, "These spark plugs service practically all passenger cars." Will you tell us why it is that only eight plugs will service practically all passenger cars? A. I beg your pardon, does it say eight plugs on here?

Q. I counted eight? A. I think you are wrong. We show the number Y-4, and number Y-5 here and the Y-4
672 here covers three types here and the J-8 and J-9—there are two others—I would just as soon answer your question.

The Court: (To witness) How many would you say that does cover if it is not eight?

The Witness: There are eleven—there are eight shown by photographs.

The Court: And eleven indicated?

The Witness: Eleven indicated, yes, sir.

The Court: The question is, I think, then, how will the eleven service practically all passenger cars? 673

Mr. Hood: Yes, sir.

The Witness: Well, because their particular sizes and heat ranges are very much normal and recommended for the greater majority of passenger cars. Those plugs happen to be very popular types, high volume types.

Q. I see represented here in facsimile only one plug, the C-4, with a 7/8 thread size. Can you tell us how many cars there are whose cylinder heads—approximately how many makes of passenger cars there are with 7/8 inch cylinder head thread size? A. No, sir. 674

Q. But among all the passenger cars that have a 7/8 thread size in their cylinder heads, this one plug may be used interchangeably, is that correct? A. We said that those plugs would service the greater majority of passenger cars and there are comparatively few cars built in the last few years that use a 7/8 inch size.

Q. Your testimony would be that among the great majority of passenger cars with a 7/8 inch size, this one plug may be used interchangeably? A. This C-4 type of plug will service quite a few of the old type cars still requiring a 7/8 inch plug and it was standard equipment on those jobs. 675

Q. Now, of the passenger cars whose thread size in their cylinder head is one inch, I see only two types of plugs recommended in this set of facsimiles, the number 7 and the C-7. Are we to understand that the #7 and the #C-7 may be used interchangeably in practically all passenger cars with that size cylinder head? A. Did you see a one inch thread—I do not know if there is such a—

676 Q. Well, you correct me.

The Court: (To witness) The C-7 is a commercial, isn't it?

The Witness: No, sir.

Mr. Hood: I am coming to that, Judge.

The Witness: You are referring to a C-7 plug and the #7 plug and they both are 18 millimeter thread with a one inch hex.

Mr. Hood: My mistake. I withdraw the former question.

677 Q. Then, is it correct that among the great majority of passenger cars that have 18 millimeter thread sizes, three plugs may be used interchangeably? A. Are there three on there?—Yes, sir.

Q. I suppose there are a great many makes and models of passenger cars that have an 18 millimeter thread size? A. Yes, sir.

Q. That is a very popular standard thread size, is it not? A. That was a very popular thread size, yes, sir.

Q. Now, the #7 and #C-7 that you talk about are the type which you mention were packed together in one of plaintiff's cartons, isn't that so, Mr. Sibley? A. No, sir.

678 Q. I mean, the type numbers were typed together, #7 and #C-7? A. No, sir.

Q. It was plaintiff's exhibit but defendants' plugs? A. No, sir.

Q. You were referring to #7 and #7 commercial? A. That is correct.

Q. The #7 and #7 commercial plugs are plugs that have adjacent heat ranges in your scale of heat range values? A. I believe so but I would like to see the chart that you have there—does that show the heat ranges?

Q. Yes, sir.

The Court: I think in order to avoid misunderstanding instead of calling them adjacent you had better state what the representative heat ranges are. To be physically adjacent does not necessarily mean mechanically adjacent. 679

(To the witness) I will ask you to state what the heat ranges are, stated in figures, if you can tell?

The Witness: What is your question, your Honor.

The Court: Counsel asked you if #7 and #7 Commercial have adjacent heat ranges. Now, I say instead of saying yes or no to that, say that the heat range of the #7 is so-and-so and the heat range of the #7 Commercial is so-and-so. 680

The Witness: The only way I can answer that is the heat range of the #7 Commercial is slightly colder than the #7 plug.

By Mr. Hood:

Q. Now, the #7 plug is one of those that you recommend for normal motor operation in the 18 millimeter size? A. It is one recommended for normal operation?

Q. Yes. A. It can be recommended for normal or it could be recommended for either side or another type of plug, either hotter or colder, but it is recommended as a 681 normal plug for some engines.

Q. Now, if an automobilist is giving his car severe service instead of normal service, he should have, for that severe service, a colder type of plug, should he not? A. Not in every case, no.

The Court: Will you please tell me what severe service means, Mr. Hood?

Mr. Hood: Are you speaking to me?

682 The Court: Yes, I am speaking to you about the way you framed the question. Some people might think that it was severe service to have a woman driver—it is a misleading term.

Mr. Hood: They use it in their literature, Judge.

The Court: There are a lot of things advertised in literature that do not help. Do you mean service in rarified atmosphere, hilly service, service in the winter or service in the summer?

Mr. Hood: Here are certain things that they classify together as severe service; high speed, high operation, heavy load, long hills, minimum stops
683 and starts, long upgrades——

The Court: You had those in mind when you framed your question, did you?

Mr. Hood: Yes, sir.

Q. Mr. Sibley, don't you recommend that in cases of severe service, heavy loads, long hills, long up-grades, long climbs and so forth, that a motorist in the same car use a #7 commercial instead of a #7 plug? A. No, sir.

Q. Well, now Mr. Sibley, on your size chart on the portion thereof that gives the operating range of Champion spark plugs, don't you show #7 Commercial as the
684 next colder plug to the #7 in the 18 millimeter size? (handing chart to witness) A. May I see the chart, please?

Q. Certainly. A. May I look at this with you?

Q. (Question repeated.) A. As shown in the operating range of Champion spark plugs in our literature, it shows the #7 commercial in one column and then there is a line under that column and then it shows the #7.

Q. Well, now, Mr. Sibley, if a motorist is using your #7 plug in his car with satisfaction, in normal use, and then the same car is subjected to severe usage, wouldn't it be proper to change to a #7 commercial? A. Yes.

The Court: We will take a recess, now, gentlemen, until 2:00 o'clock, P.M. 685

AFTERNOON SESSION.

BRACE H. SIBLEY, resumed the stand and testified further as follows:

Cross-Examination by Mr. Hood (Continued):

Q. Mr. Sibley, these plugs that you have examined, Plaintiff's Exhibits 1, 2, 3 and 4, are not rebuilt plugs, are they? A. You will have to clear up the definition of "rebuilt". 686

Q. Well, when plugs are sent back to your factory with complaints, is it your practice to reconstruct the plugs that are complained about? A. No, sir, we do rebuild some two-piece plugs.

Q. And in the rebuilt plug do you put in new insulators? A. On a two-piece plug, yes, sir.

Q. And, I believe, new center wires? A. A new insulator has a new center wire.

Q. Isn't that your conception of a rebuilt plug? A. Yes, sir. 687

Q. And according to your understanding of a rebuilt plug, these plugs of the defendant that you have examined are not rebuilt plugs, are they? A. They might be rebuilt to the extent that they have a new side wire attached to them.

Q. Wouldn't you characterize these plugs as repaired rather than rebuilt plugs?

Mr. Owen: If your Honor pleases, I think the witness cannot be asked as to what he means or what

688 is meant by the term "rebuilt" or "repaired". He can tell what he understands by that.

The Court: Of course, his answer must comply with his understanding.

Q. (Question repeated.) A. Well, there has been something new added to them, the same as in the case of our two-piece plug where we put new cores and center electrode in them.

Q. The only new thing you saw added was a side electrode, isn't that right? A. Yes.

Q. Is that but a very small element of the entire plug?
689 A. That is one of the important functioning parts of a plug.

Q. The function is to convey electricity, isn't it? A. Yes.

Q. And of the criticism you make of the side wires, the side electrodes put on these plugs by the defendants, you make no criticism of the electrical conductivity of the wire, do you? A. No, sir.

Q. Now, you mentioned that there is a different type of welding used on these plugs than the one that you were currently using? A. Yes, sir.

Q. But sometime in the past you welded your side elec-
690 trodes on in the same manner that you saw in the defendants' plugs? A. We used the same style.

Q. And how long did you use that style of welding now used by the defendant? A. Oh, for two or three years.

The Court: (To witness) Will you designate the years, please?

The Witness: What is that?

The Court: What years were they?

The Witness: About 1934, late 1934, through 1935 691
and 1936 and we discontinued along the latter part of 1936.

Q. Isn't it possible that there are still on retail dealers' shelves, new Champion spark plugs with the same style of welding as that which you saw in defendants' plugs? A. That can be possible, yes.

Q. The reason that you shifted to another style of welding in your current output, I believe, is—

The Court: Are you asking him or telling him?
Mr. Hood: I am asking, Judge. 692
The Court: Why don't you say, what is the reason?
Mr. Hood: I wanted to be more specific.
The Court: Well, ask him a specific question.

Q. Why did you change the style of welding? A. We changed the style of welding due to numerous field failures and failures of the wire itself in that the wire came off the plug and it loosened to the extent that it would not carry the heat away.

Q. Didn't you answer the same question on direct examination by saying in part that it was a more difficult 693
welding job for your employees? A. I do not know as I quite answered it that way but it is a more difficult weld to make and control and still have a good welded joint.

Q. And by a good welded joint, you mean one where the wire won't come off, isn't that so? A. Yes.

Q. So your complaint was that the wire came off? A. Yes, sir.

Q. And on any of the forty of defendants' plugs that you examined, did the wire come off? A. No, sir.

694 Q. Would that indicate to you that this particular more difficult type of welding had been competently done? A. No, sir.

Q. You wouldn't draw any particular conclusions from that? A. No, sir, because when we are notified of these failures, those plugs had been subjected to service and use.

Q. But there wasn't anything in any of these plugs that indicated to your mind that that electrode was going to come off, was there? A. No, sir.

Q. Would you say, Mr. Sibley, that the likelihood of the wire coming off would depend on the skill and care with which the welding was done? A. Yes, and the abuse
695 that the particular wire might be subjected to in servicing.

Q. Exactly, and either type of welding could be subjected to the same type of abuse, isn't that so? A. No, sir—Yes, sir, it could be subjected to the same type of abuse but one might show failure over the other.

Q. Mr. Sibley, would you say that the chief difference between the spark plugs with the same thread size is in the heat range? A. The heat range and the thread length. When you say the same thread size, are you referring to just the diameter or what?

Q. The thought I had in mind was to exclude any one
696 of the functional parts of the plug, such as the thread size. In other words, the chief difference in spark plugs, in their functional factors, is in the heat range, isn't that correct? A. To a general extent, yes, sir.

Q. And you would recommend one spark plug of one particular thread size and length rather than another spark plug because of some variation in the heat range, isn't that so? A. I don't believe I quite get that. Will you please repeat the question?

Q. (Question repeated.) A. Yes, sir.

Q. And the variations in measurements at the firing end of the plug, in the designs of your various types of plugs, are for the purpose of accomplishing a variation in the heat range, isn't that so? A. We change it in some of the dimensions, yes, sir. 697

Q. I mean, if you have a shorter or longer dimension on the core and the shell and a longer dimension of the center electrode, for example, the purpose of that is to affect the heat range of the plug? A. That balances out with the location of the insulator seat in the shell, yes, sir.

Q. But you would not say that the purpose of all that designing is to supply a plug with a particular heat range? A. Yes, sir. 698

Q. Now, the heat range of a particular plug for a particular engine is elastic in the sense that the same engine might require different heat ranges of the plugs under different conditions of operation, isn't that so? A. Yes, sir.

Q. And might require different heat ranges at different ages of the motor, isn't that correct? A. Yes, sir.

Q. And the fitness of a spark plug for a particular engine is then a matter of practical performance in the particular engine, is it not, Mr. Sibley? A. Yes, it is determined in a practical manner, if the normal recommended plug causes failure. 699

Q. And a pre-conceived design of a plug and the recommendation of a plug must always be subordinated to the actual functioning of the particular plug in the particular engine, is that not true? A. That is so, if changes take place in the engine or the conditions.

Q. So that variations in the measurements of a particular spark plug for a particular engine are only important in so far as they affect the performance of the plug in that particular engine, isn't that so? A. Yes, sir.

700 Q. You could take the spark plugs out of one automobile and insert them in another automobile of the same make and type with every prospect of similar satisfaction, could you not? A. If the plugs you originally took out were the recommended plugs.

Q. Regardless of whether they were the recommended plugs, if they are functioning satisfactorily in the former car couldn't you put them in a similar car with prospects of the same satisfaction? A. Yes, sir, provided the service was about the same.

Q. Now, if you took a set of spark plugs out of a car and reconditioned them and put them back, not in the
701 same car but in another car of the same make and type, subjected to the same service conditions, wouldn't they give about the same service in the new car that they would give in the car from which they came?

Mr. Owen: I object to that question because of the indefiniteness of the meaning of the term "reconditioned".

The Court: Well, is it understood that the reconditioning is the reconditioning explained by the witness as to what they do in their own factory,
702 namely, they replace the insulator.

(To witness) I think that is what you said.

The Witness: That was in a rebuilt plug, yes, sir.

The Court: Well, what do you understand by the term "reconditioned plugs." Let us get that straight. Has it any generally accepted meaning so far as you know?

The Witness: It is something that we do not use ourselves. We use the term "cleaning and servicing."

The Court: Well, are you able to say whether 703
there is any generally accepted understanding in the industry as to what a reconditioned plug is?

The Witness: The only way I believe I can answer that is I believe some people that clean these cast off plugs, call them reconditioned plugs.

The Court: That is all you know about it?

The Witness: Yes, sir.

The Court: Now, what was that last question?

(Previous question read to the Court by reporter.)

The Court: (To witness) Are you able to answer 704
that question?

The Witness: I would think so, I would except they would.

The Court: What do you know about reconditioned plugs that enables you to say that? Suppose the insulator is short and the center electrode is short, and so forth, is that a reconditioned plug?

The Witness: Yes, sir, the center electrode can be cut back by the reconditioning process and so can the insulator.

The Court: Is that what you are assuming in saying that such a plug will give the same service 705
in another car of the same make?

The Witness: It will give the same service in the second car that it had previously.

Mr. Owen: I do not understand that the witness so testified.

The Witness: I am under the impression that the set of plugs being removed from the engine are reconditioned plugs; that there was no change made in the plug after the removal from one engine to another.

The Court: Thank you for clarifying it.

706 *By Mr. Hood:*

Q. In the literature put out by your company, haven't you described this sandblasting outfit and testing machine that has been *referred to by previous witnesses as a* cleaner, as a reconditioning unit? A. I don't believe I can answer that. I do not know of any previous witness that has called it that.

Q. You have testified in the Federal Trade Commission proceeding entitled, "Federal Trade Commission against Perfect Recondition Spark Plug Company", did you not? A. Yes.

707 Q. And Mr. Earl Twining testified in that proceeding, did he not? A. He did.

Q. And who is Mr. Earl Twining? A. He is assistant engineer at the Champion Spark Plug Company, Toledo, Ohio.

Q. Do you not recall the literature being introduced in the proceeding in which that unit was referred to as a reconditioning unit? A. No, sir.

Mr. Owen: I object——

The Court: He said, no, Mr. Owen.

Mr. Owen: Objection withdrawn.

708 Mr. Hood: What happened, your Honor, is apparently this: They called this unit a reconditioning unit in the literature but in the litigation an effort is made to get away from it.

The Court: Suppose they did call it a reconditioning unit, what has that to do with the issues we have here?

Mr. Hood: On the question of what reconditioning is, your Honor.

The Court: But how is that affected by a label that they may have used on a machine that they put out?

Mr. Hood: Becau e if I understand it correctly, 709
they make some contention that we do not recondition plugs because we do not restore to the precise condition they were in when new.

The Court: I understand that is one of the issues. Now, I ask you how it would be affected by a label used on one of the machines they sell for the purpose of enabling the user to clean his own plugs?

Mr. Hood: It seems to me, your Honor, that if they call reconditioning an operation which is merely removing the deposits on a plug and restoring a gap on a plug and we show that we do the same thing, that to my mind would indicate that 710
we are reconditioning the plug from the general understanding and use of the word, as used by plaintiffs themselves.

The Court: Suppose they call the moon something made of green cheese, am I bound by that?

Mr. Hood: No, your Honor, but I think you are bound by the testimony in the case.

The Court: In this case.

Mr. Hood: Yes.

The Court: Yes, certainly.

Mr. Hood: And the only way that I can show 711
you what reconditioning is, is by testimony.

The Court: I would be very glad to hear testimony but what somebody said on a pamphlet before the Federal Trade Commission I do not regard as testimony.

Mr. Hood: It is not just somebody, your Honor, it is the plaintiff corporation calling it a reconditioning machine.

The Court: All right, suppose the plaintiff called the device that it sells a reconditioner—suppose that be true, what has that to do with this decision?

712 Mr. Hood: Here is what I have in mind, Judge: If the plaintiff in its customary communications with the public describes a certain operation as reconditioning, it is then not in a position to come into a courtroom and complain of the same operation conducted by someone else on the ground that it is not reconditioning.

The Court: I do not understand that to be the complaint of your operation. I understand they do complain of your selling these plugs as reconditioned Champion spark plugs. I do not understand that they have any complaint against your
713 operation.

Mr. Hood: That is a question of terminology and I think the fact that they refer to our operations as reconditioning bars them from claiming our operation is not reconditioning.

Mr. Owen: That, your Honor, is an assumption that is not justified by the record.

The Court: I say, suppose they do—giving the argument its broadest possible scope—my inquiry, if I understand it, is this: Is the article that you are selling a Champion spark plug when you get through with it? If it is, one result follows, and
714 if not, another result follows. It is just as simple as that and I refuse to be led off into a lot of by-paths that I do not think affect the issues.

Mr. Hood: I don't want to lead your Honor into any by-path, but the thought I have in mind is this: We are not trying to show that our plugs are new Champion spark plugs. We claim it to be scientifically impossible to restore, by some operation, a used plug to the same condition as it was when brand new. I merely say that there is nothing im-

proper about our choice of the word reconditioned instead of some other word, to describe it. 715

The Court: I suggest that even if you were able to introduce a pamphlet that was attributed to the plaintiff and offered to the Federal Trade Commission in which they describe the machine that they use for cleaning spark plugs as a reconditioning device, what bearing has that on the elements in this case before me?

Mr. Hood: I think it would be pertinent, your Honor.

The Court: Well, I don't think it would be pertinent but I will not exclude you if you have anything to offer. This witness has given a negative answer to your last question and I am only trying to avoid taking unnecessary testimony. 716

By Mr. Hood:

Q. Do I understand you to say that you have never described this unit as a reconditioning unit, in your literature? A. That is correct in literature that we have put out, it would be a servicing unit, a cleaner and tester.

Q. It is not described as a reconditioner? A. Not to my knowledge, no, sir. 717

Q. Is it possible that there is literature of which you have no knowledge——

The Court: Anything is possible.

The Witness: Certainly it is possible with literature I have never seen.

Q. I show you this pamphlet—have you seen this before?

718 The Court: Showing the witness what?
The Witness: It says, Defendants' Exhibit A.
The Court: Have you seen that before?
The Witness: Yes, sir.

Q. I direct your attention to the language in the lower left-hand corner there "To recondition the insulator." Will you please tell his Honor what that phrase means? A. This, your Honor, is an advertising business——

The Court: What does that mean, that expression, "recondition the insulator"?

719 The Witness: I don't believe I can answer that much but it means to clean the surface deposit from the insulator. This literature is not packed with the cleaner or the tester.

Q. Isn't it possible, Mr. Sibley, for a spark plug to foul within the first few hundred miles of its operation? A. Yes, sir.

Q. Will you tell his Honor what causes that? A. The passing of oil past the pistons and rings, defective spark plug cables, gaps improperly set and a broken spark plug and defective insulation.

720 Q. Would too much use of a choke cause that, too? A. Yes, sir.

Q. And improper carbureter setting? A. Improper carbureter setting would probably foul out sooner.

Q. And improper distributor point setting? A. Yes, sir.

Q. And oil used in the gasoline as an aid in running it? A. Yes.

Q. Now, all of those causes could cause a spark plug to foul without their being any structural defect in the spark plug itself, isn't that so? A. Yes, sir.

Q. And when that spark plug has fouled because of no defect in the spark plug itself, is that plug capable of further efficient use? A. It is after servicing, yes, sir, providing it is not completely worn out. 721

Q. I am talking about a spark plug that has fouled within the first few hundred miles of operation, from any of the causes I have stated. Now, by servicing, do you mean the servicing recommended in this advertising literature marked Defendant's Exhibit A? A. Under "Service Procedure" at the bottom?

Q. On the other side (indicating to witness)? A. These are recommendations after 2,500 miles of service.

Q. That is under ordinary conditions, isn't that so, Mr. Sibley? A. Yes. 722

Q. That means such conditions as would cause the same state of the spark plug that I have been assuming where it is fouled only after a few hundred miles of operation under exceptional conditions, isn't that true? A. Yes.

Q. And the servicing of the plug to which you have referred is the servicing you would extent to any fouled spark plug not structural defective, isn't that so? A. Yes.

Q. And by servicing, don't you mean the procedure spoken of on Defendant's Exhibit A, that is, to reset the gaps and recondition the insulator? A. I would like to state that there is a further procedure outlined on this chart. 723

Q. Well, can you answer the question I put to you? A. Yes, sir, that covers part of the service procedure.

Q. Now, in the general use of automobiles, does it happen that defects in operation of the ignition of the plug are found which are not the fault of the plug itself but some other part of the automobile apparatus? A. Yes.

725 Q. Would you say from your experience that some automobile owners discard an efficient spark plug that is missing because of some other defects in the automobile?

The Court: Has this witness necessarily had an opportunity to form an opinion as to what automobile owners do? I should think that your service men would be prepared to pass on that.

Mr. Hood: If he knows, Judge. If he doesn't know, I will withdraw the question.

724 The Witness: I don't believe I know too much about the service field. It would seem that you would not throw anything away that was serviceable unless you had your value out of it.

Q. Your company has spent a great deal of money in research of various kinds, isn't that true? A. Yes.

Q. And in that research I suppose you have included research into the practical operating conditions of spark plugs and into the habits of the motoring public?

726 The Court: (To witness) Have you conducted any research into the habits of the motoring public?

The Witness: Yes, on our own field cars—our own cars around the plant.

The Court: You don't consider that your cars are anything but a very small element of the motoring public, do you?

The Witness: It is one small element, yes, sir.

Q. For example, faulty valve action and timing could cause defective ignition and show an oily, greasy looking

spark plug although the spark plug itself would be per- 727
fect, isn't that so? A. Yes.

Q. Now, with that in mind, wouldn't you say it is possible to take such a plug and look at it and examine it, if you are familiar with faulty plugs, and determine that it is a structural perfect plug that is merely fouled? A. No, if there was something else wrong and knowing that that caused the plug to foul, yes, but there are hidden defects in a plug that you cannot see.

Q. Well, when a spark plug has become fouled isn't it possible and feasible to clean that plug in your cleaning and reconditioning unit and subject it to a firing test in your testing unit and see that the plug is a satisfactory 728
and efficient plug? A. It is possible to clean it and check it in our tester?

Q. Yes. A: But I have known of broken plugs that would still show satisfactory in the tester.

Q. Well, when would they show themselves to be unsatisfactory? A. In practical use, firing under heat and pressure.

Q. And would speedily would be determined when the spark plug is put in the car? A. Yes, sir.

Q. However, those cases of obscure defects are comparatively rare, are they not? A. Yes, sir. 729

Mr. Owen: Compared with what?

Q. In comparison to the total number of fouled plugs that are subjected to the servicing operation? A. Yes, sir.

Q. Then, with the exception of these comparatively rare instances, it is possible for a person familiar with spark plugs, by visual examination and the testing machine for a firing test, to determine in the very great majority of cases whether or not the plug is fit for practical use? A. Yes, sir.

730 Q. Now, the chief thing that determines the life of a spark plug is the life of the electrode, is it not, Mr. Sibley? A. That is correct.

Q. You put your spark plugs on the market, each one set to .025 of an inch, don't you? A. No, sir, I would not say they are generally set at .025 of an inch.

Q. But a great many of them are, with instructions to reset the plug, isn't that so? A. I believe some are put out at twenty-five with instructions to reset them for other cars.

Q. Will you explain why your size chart says to reset the spark gap before use——

731

Mr. Owen: Are you showing the witness any literature?

Mr. Hood: Yes.

Q. I show you Defendant's Exhibit D. (Continuing question) to .025 of an inch, with the exception of thirteen models of cars? A. Because the .025 of an inch spacing is proper for cars other than these thirteen—I did not count them—you say there are thirteen.

Q. Now, do you have any standard gap that you put on your spark plugs when they leave your factory? A.
732 What we term a standard gap for a plug that leaves our factory is a gap that is used for the majority of the cars that that plug is to be used for.

Q. Now, the reason that it is necessary for the customer to reset the gaps on your spark plugs is because the gap that is on the plug when it leaves your factory is not the right gap for his automobile, isn't that so? A. When the plug leaves our factory, it is either right or not right, and if it is not right, there are instructions for resetting—he is told what gap it has to be set at.

Q. In other words, your method of merchandising is to rely on the customer to reset the gap to the manufacturers recommendations for his particular car? A. If the plug requires it, yes, sir. 733

Q. Do you furnish any instrument with the plug or the carton, for changing the gap? A. No.

Q. In actual practice, does the average motorist change the gap? A. I doubt very much whether the actual motorist changes the gap and I doubt very much that the actual motorist installs very many plugs.

Q. Mr. Rohde, the Chief Engineer for the Champion Spark Plug Company, was your immediate boss for many years, wasn't he? A. Yes, sir. 734

Q. And he was considered one of the great authorities on spark plugs in the world, was he not? A. Yes, sir.

Q. Do you agree with this statement of Mr. Rohde's made in the Emener case——

Mr. Owen: I object to this method of getting Mr. Rohde's testimony in this case.

Mr. Hood: This is an expert testifying here.

Mr. Owen: You can ask the expert what his views are on that subject but I don't think it is necessary to bring in the testimony of Rohde given more than ten years ago. 735

The Court: Is this with reference to any subject concerning which this witness has testified as an expert?

Mr. Hood: He has just testified to it.

The Court: This has to do with the changes recommended on the chart?

Mr. Hood: With public practice. This is cross-examination, your Honor.

736 The Court: You will have to do a little bit better than just saying cross-examination. That covers a multitude of sins but it is not always helpful. If you are about to read something in the nature of an expert opinion which bears on a subject concerning which this witness has expressed an expert opinion, I propose to let you do it, but other than that, I do not think much of this method.

I am allowing you to do this on the subject of expert opinion exactly as I would if you called his attention to a text book—have you read this text book and have you read this expression from it
737 and what have you to say about it—on that theory I am willing to let you do it, provided you are going to ask him something as to which he has given an expert opinion in his testimony.

Mr. Owen: I would like to hear the opinion that the witness has given.

I think if this expression is to be pursued that you should show that this first witness is familiar with what the motoring public does.

Mr. Hood: Your former chief engineer gave testimony on the point before the Federal Trade Commission.

738 Mr. Owen: If the witness knows and has means for knowing and he testifies as to what his understanding is, all right.

The Court: (To witness) What opportunities have you had to observe the habits of the motoring public in connection with changing the spacing of the spark gap, inserting spark plugs or doing anything else—tell us what your observations have been?

The Witness: Possibly only two or three cases 739
in Toledo, of people coming to our plant and the engine is not operating well and they have recently bought the plugs and they come out and we remove the plugs and find that the gaps have not been properly set and we adjust the gaps, and that cures the trouble.

That probably is three or four or five cases during a month that comes to my attention. We do not carry on any service out there, it is merely a matter of accommodation.

By Mr. Hood: 740

Q. Mr. Sibley, it is the fact that a great many plugs are sent back to you with various complaints, isn't that so? A. It is the fact that some plugs are sent back—not a great many.

Q. Didn't you testify in the Federal Trade Commission proceeding that you got 12,000 plugs a month back? A. I do not know exactly what it was at that time but it is not 12,000 today.

Q. Well, it is less because of the gasoline rationing, isn't it? A. I might say that it could very well be more because we are building more spark plugs in the past two 741
or three years.

The Court: Now, do not let us get too far from the point. I do not regard the witness as qualified to express an expert opinion as to the habits of the motoring public in connection with the adjusting of the spark gaps and putting spark plugs in place. I will sustain the objection and you may have an exception.

Mr. Hood: Exception, your Honor.

742 Q. Among these plugs that come back to your factory don't you find a good many plugs about which complaints are made where people have used the plugs and they have not changed the gap at all? A. There are very few plugs sent in where there is a letter of explanation along with it.

The Court: (To witness). No, have you observed that the gap has been changed or not?

The Witness: No, sir.

Q. Do you mean that they have not been changed?

743 The Court: He means that he has not observed.

Q. What is the average life of one of your spark plugs under normal operating conditions?

The Court: Does the answer call for miles?

Mr. Hood: Yes, Judge.

The Witness: I do not believe I can answer what the average life is of a spark plug under normal operation.

Q. Is Mr. Robert Stranahan the president of your
744 company? A. Yes, sir.

Q. And do you agree with this statement made by Mr. Stranahan, as follows:

Mr. Owen: If the Court pleases, the witness has just stated that he does not know and therefore I object to the question.

The Court: Objection sustained.

Mr. Hood: Exception.

Q. Mr. Sibley, haven't you conducted research to determine the operating life of your plugs? A. Yes, sir.

Q. And haven't you subjected your plugs to road tests, 745
practical use? A. Yes, sir.

Q. And you say you have no opinion as to the average— A. I would have no way of forming an opinion of an average of the motoring public—there are an enormous number of plugs used, in tractors, stationary engines and automobiles and trucks.

Q. Confining the question to passenger cars, have you an opinion about that? A. Not what the average would be.

Q. Can you state it with the mean and extreme limits? A. I would not care to give a figure.

Q. Do you mean to say that all of the research that 746
you have conducted on the point has not enabled you to form any opinion, even of the mean and extreme limits of the operating life of your passenger car plugs? A. I can state operating limits and the life of spark plugs in automobiles but I could not give you an average, not knowing the conditions and not knowing any way to arrive at an average.

Q. Would you state the operating limits, please? A. The operating limits of a plug can be from 3,000 miles up to 30,000 miles but there would be no way of drawing an average of those two.

Q. I believe you testified on direct examination that 747
the minimum recommended gap on your plugs was .015 of an inch and your maximum was .037 with a tolerance of .039? A. Yes, sir.

Q. With the maximum recommended gap of .037 of an inch, can you tell us why, on the Oldsmobile, for their 1936 six cylinder car, your recommended gap was .039? A. I believe that testimony said .037 plus 2 and minus 2 and in another case it was .037 plus three.

Q. Then, is your maximum gap actually .039 with a tolerance in the case of the Oldsmobile? A. That's right.

748 The Court: The six cylinder was .039 and the eight cylinder was .040, I think he said.

Q. You only give an engineering inspection to ten per cent. of your output, don't you? A. Approximately ten per cent.

Q. And that inspection uncovers hundreds of defective plugs a day, isn't that so? A. No.

Q. Does it uncover any? A. Yes.

Q. How many? A. Well, it could be a hundred or more some days and less than that on some days.

Q. I suppose the other ninety per cent., there are 749 other defects that escape by reason of lack of such final inspection, isn't that so? A. No, if on the recheck in the engineers' inspection, if there is anything wrong, those plugs are held or all are reinspected. They are rejected and not passed for packing.

Q. Isn't it possible, Mr. Sibley, that some of the criticism that you have directed at the defendants' plugs may be the fault of some defect in original manufacturing on your part?

The Court: I have not heard him criticize the defendant's plugs. He has stated certain measure- 750 ments and certain physical conditions but I have not heard him criticize them.

Mr. Hood: All right, I will withdraw the question.

Q. Isn't it possible, Mr. Sibley, that some of the measurements in defendants' plugs which you say do not correspond strictly with the measurements of the plugs as they were when they were new, are due to some defect in original manufacture? A. It can be possible. It is not too probable, however.

Brace H. Sibley—Recalled—for Plaintiff—Cross.

Q. There isn't any way of ascertaining how much a 751
variation in these plugs is due to former defects in the original manufacturing, is there? A. There would only be the one dimension, which would be the length of the center electrode which could originally have been a little bit different.

Q. There could be a defect in the shape of the insulator, too, could there not? A. No, sir.

Q. There could be a defect in the size of the insulator? A. No, sir, not in what I have referred to in the examination of the plugs.

Q. Don't you scrap a lot of insulators as defective? A. 752
Yes, sir.

Q. And in the handling of these insulators, isn't it normal, let us say, that the semi-petticoat feature might be damaged or other little chips or other damage occur to these insulators? A. It is possible that they can be damaged but there are enough inspection operations before the insulator is used to check those.

Q. But you said that there is but ten percent. of the output inspected? A. That is correct but they go through all the other inspections before that.

Q. Now, this size sheet which gives the various gaps for various models of cars, you say is something you use 753
only in the factory? A. The gap sheet?

Q. The gap sheet? A. Yes.

Q. And that is only to control the production of spark plugs going out to manufacturers for installation in new cars? A. No, not in every case.

Q. But on your production that goes out not to the manufacturers but to the general public, you rely upon the consumers to reset the gaps to the proper dimension and for that purpose you furnish a size chart? A. We furnish a size chart for that use but we hardly rely on people to reset the gaps.

754 Q. You instruct them to reset them, don't you? A. Well, the purchaser of a set of spark plugs does not see that particular sheet and I hardly believe that he sees any others. Dealers use that one.

The Court: And by "that one", you mean what—is it an exhibit? Please make the record coherent.

Q. Referring to Defendant's Exhibit E? A. Yes, sir.

Q. So that a motorist buying one of your spark plugs and not being furnished with this dealer sheet, would not know that he is supposed to reset the gap, would he? A.
755 That is correct, except the little slip that is packed with the plug.

Q. And what does the little slip say? A. There are four in evidence now, I believe.

The Court: They are plaintiff's exhibits 13, 13A, 13B and 13C.

Q. I show you these exhibits and I ask you if these are the only notices that go in your spark plug cartons or are they merely typical of many? A. These are typical of others that are used.

756 Q. So that practically every plug that you put out for passenger cars contains with it a slip containing some instructions to the consumer to reset the gap? A. No, sir, I do not believe it is practically every plug.

Q. But a great many of them? A. A large quantity of them, yes.

Q. And your general instructions to the Champion dealers are to reset the plugs as shown by the advices on the size chart, is that correct? A. Well, my interpretation of the resetting is they first check it. If they find

the gap not proper, they then reset it but the gaps are 757
there previously set at the factory at the time the plug is manufactured.

Q. And then, from experience, it is not wise for the motorist to rely upon the gap as he gets it but he should check it, is that right?

Mr. Owen: I object to that, the witness has not so testified.

Mr. Hood: I am asking for his opinion, Judge.

The Court: If you would recast the question, I think it would be more valuable. It is not so much a question of whether it is wise for the individual 758
motorist to change the gap—the question is whether when the plaintiff puts out its product it intends to suggest to the individual motorist that he should compare the gap and if need be, change it. If that is their intention, I think the witness is a competent witness on that subject, but to ask him whether it is wise for a motorist to do or not to do a certain thing, I think that is quite misleading.

Mr. Hood: That's right, what I was driving at was——

Mr. Owen: I think the question is whether these 759
instructions are intended for individual motorists or for garage mechanics.

The Court: Let us think of that for a minute. The underlying question is are these spark plugs put out with the gap that they are intended to employ or are they not? That is the underlying question. If the instructions are issued to change the gap, that would tend to indicate that it is put out with a nominal gap or one subject to change and it seems to me that that may be an important aspect of this case.

760 Mr. Owen: The point that I wish to bring out, your Honor, is this: That the way these questions are framed they imply that these instructions are given to individual motorists and that I do not understand to be the fact. I think these instructions are given to garage mechanics, that they are to check the gaps and see that they are set properly for that particular use of the plug.

The Court: And I still say in my view of the case it is not very important whether a garage mechanic or a motorist makes the change. It is the fact of necessity for the change or reasonable
761 necessity for the change that I think is important to this litigation.

Mr. Owen: I have no objection in going into that. It has already been covered on direct examination.

The Court: Isn't that what you have in mind, Mr. Hood?

Mr. Hood: Yes, sir.

The Court: Let us go ahead.

By Mr. Hood:

Q. Mr. Sibley, it is true, as his Honor has stated, that
762 it is your company's intention, in putting out the plugs, that the person who obtains the plug, whether a mechanic or a member of the public, should examine the gap and reset it if it is not suitable for the car, is that correct? A. Yes, sir.

Q. And the result of resetting the gaps is to bend the side electrode, isn't it? A. Correct.

Q. And bending the side electrode would throw out of alignment any parallel facing of the side electrode and the adjacent portion of the center electrode, would it not? A. Slightly, yes, sir.

The Court: At this time we will take a recess until 10:30 o'clock, tomorrow morning. 763

(Thereupon, a recess was taken.)

TRIAL RESUMED.

Brooklyn, New York, April 3, 1945.

Before: HON. MORTIMER W. BYERS,
U. S. D. J.

764

(Appearances as heretofore noted.)

BRACE H. SIBLEY, resumed the stand and testified further as follows:

Cross-Examination (Continued) by Mr. Hood:

Q. Mr. Sibley, in order for a fouled plug to be unfit for further cleaning or use, the porcelain would have to be broken, would it not? A. Yes, unless the plug was completely worn out, due to use.

Q. And by completely worn out, I suppose you mean if it is impossible to restore the gap to the electrode? A. 765
If it was impossible to restore the plug to its more or less original condition.

Q. You did not find in any of the forty plugs that you examined, any broken porcelains, did you? A. No, sir.

Q. Now, the position of the spark in the cylinder is fixed by the electrode, the center electrode, isn't it? A. It is fixed by the length of the center electrode or in the case of the #C-7, the length of the core and the center electrode in relation to the shell and in some spark plugs it is fixed because the shell projects also into the cylinder.

766 Q. The axis of the center electrode is always parallel to the side of the cylinder, isn't it? A. No, sir.

Q. Do you try to make them parallel? A. Was the question, the axis of the center electrode parallel to the side of the cylinder, meaning the engine cylinder?

Q. Yes. A. No, sir, some plugs are installed at an angle.

Q. How much of an angle? A. Well, that varies.

Q. But whatever the angle is, it is fixed with reference to the wall of the cylinder, is it not? A. I presume it is determined to be the best for that particular engine, considering spark plug location and room for the spark plug.

767 Q. What I mean is, the angle of the center electrode, if any, is fixed in the manufacturing process and it is not changed in use, isn't that so?

The Court: I am not sure that I understand your question.

Mr. Hood: I withdraw the question, your Honor.

Q. The center electrode of the spark plug is not a moving part, is it? A. No, sir.

Q. It is a fixed part of the plug? A. That's right.

768 Q. And the only change that occurs in its position in use is any slight change that might be due to wear, isn't that so? A. Any change that might be due to wear.

Q. Now, in Mr. Stranahan's testimony yesterday——

Mr. Owen: Mr. Stranahan has not testified here.

Mr. Hood: You read portions of his affidavit pursuant to stipulation.

Mr. Owen: Is that what you refer to?

Mr. Hood: Yes, sir.

Q. I believe Mr. Stranahan testified that you had found by experiment that variations of a sixteenth of an inch or more might change the performance of the plug. Is that a correct statement? A. Yes, sir. 769

Q. And a variation of a sixteenth of an inch in the center electrode might change the position of the spark to some material extent? A. Yes, sir, it would change the location of the spark.

Q. Now, the location of the spark is only important in cases where there is stratification of the explosive gases in the cylinder prior to the explosion, isn't that so? A. Yes, sir.

Q. Because the whole, entire explosive charge in the cylinder can be exploded at any point therein? A. It can be exploded at any point therein but it can be burned from a point in the cylinder which is not good for that particular cylinder and it causes pinging and detonation. 770

Q. Now, that position of the spark, then, is in the nature of a refinement upon the general problem of exploding gaseous charge in the cylinder?

Mr. Owen: I object to the question as too indefinite.

The Court: I am wondering how far this witness is called as an expert with reference to the combustion of gases in a cylinder. After all is said and done, the question in this case is whether the defendant is selling Champion spark plugs and I think it would be well for you to keep your mind on that problem and not wander too far from the issue. I will sustain the objection. 771

Mr. Hood: Exception.

Q. If you know, Mr. Sibley, won't you tell us whether stratification of gases in the cylinder depends upon the

772 turbulence of the charge, its tendency to turn over and mix as it enters the cylinder?

Mr. Owen: I make the same objection.
The Court: Same ruling.
Mr. Hood: Exception.

Q. Now, do I understand you to say that in order for the position of the spark to be materially affected, so far as performance is concerned, the center electrode's position would have to be moved a sixteenth of an inch or more? A. I answered the question that if they were——

773

Mr. Owen: I object to the question because it is misleading.
The Court: He was asked if a sixteenth inch variation would affect the performance of the plug and he said, yes.

Q. A thousandths of an inch variation would not affect the performance, would it? A. I would hardly expect one-thousandths would.

Q. So that, would you say that a sixteenth of an inch is a fair statement of the distance which would affect the
774 performance of a plug in an engine? A. A less difference than one-sixteenth will affect the performance.

Q. It would not affect the performance materially, would it?

Mr. Owen: I object to that, your Honor.
The Court: I will allow the question but I may have to ask counsel to please keep to the issues in the case. Just bear in mind what was pointed out to you on the hearing on the preliminary injunction.

You may not approve of the design of the plaintiff's plug—— 775

Mr. Hood: That's not what I have in mind, Judge.

The Court: Yes, but it is necessary that you should have it in mind and your case does not gain any strength from the argument that the plaintiff is mistaken in dimensions, in its dimensions.

Mr. Hood: That was not what I had in mind at all, Judge.

The Court: That does not give you the right, if you are not selling Champion spark plugs, to call them Champion spark plugs. 776

Mr. Hood: I agree with you.

The Court: Thank you. Now, just keep to the issues, please.

Q. How much of a variation would materially affect the performance of a plug in an engine so that the motorist would notice it in operation?

Mr. Owen: I object to the question.

The Court: Materially is an expansive and elastic term. That is the trouble with the question. I propose to let him ask it because I would like to make a little progress. 777

Mr. Owen: I understand he is asking how the motorist would know.

The Court: If the witness can answer it.

Q. (Question repeated.) A. I think that is a pretty hard question to answer, so far as the motorist knowing.

The Court: (To witness) If you are not able to answer it, Mr. Witness, just say so and we will go to something else.

778 The Witness: I cannot answer that because I do not know what the motorist would find.

Q. Can you answer it, Mr. Sibley, if I explained that what I am interested in is not a theoretical scientific difference in operation, that no one would notice in the operation of a motor, but a practical difference in operation such as would be noticed by a motorist?

Mr. Owen: I make the same objection.

The Court: If that is a question, I will exclude it. I think it is not a question, I think it is a speech.

779 Mr. Hood,——

Mr. Hood: I am trying to explain to the witness, your Honor.

The Court: It does not make any difference what is in your mind—some motorists are more acute in their observations than some other motorists. Why don't you take up something else?

Q. What is the measurement, in examining a spark plug, which determines a shortening of the center electrode?

780 Mr. Owen: I object to the question as indefinite and immaterial.

The Court: What is the question?

(Last question read to the Court by the reporter.)

The Court: I am sorry but I don't understand the question.

Mr. Hood: I will put it this way——

Q. How do you determine, in examining a spark plug, the measurement of shortening of the center electrode?

Mr. Owen: I object to that. 781

The Court: Does that mean when he makes a comparison between a new spark plug and defendants' output, what is it he measures, is that what it means?

Mr. Hood: Yes, Judge.

The Court: (To witness) I suppose you measure the respective lengths of the center electrode as you can see them, is that what you do?

The Witness: Yes, sir.

The Court: Isn't that the obvious answer?

Mr. Hood: That is not what I have in mind, Judge. 782

The Court: All right.

Q. Don't you measure the distance from the end of the center electrode to the shell? A. Yes.

Q. And that is what tells you how much of the center electrode has been shortened, doesn't it? A. Yes, sir, in comparison to—and knowing the original length in the new plug.

Q. Tell us how much of a change in the measurement, in the distance from the shell to the end of the center electrode, as a result of use, will materially affect the performance of a spark plug in an automotive engine? 783

Mr. Owen: I object to that question.

The Court: If he has made tests to determine how much of a shortening will or will not affect the operation of a plug, I will let him answer.

Mr. Owen: This question was more involved than that, your Honor.

The Court: But I think that is what it comes down to.

784 (To witness) Have you ever tried to ascertain, sir, how much of a shortening of the center electrode can be tolerated without affecting the operation of the plug?

The Witness: In tests in a given engine, development tests, any shortening of the electrode around .025, .020 to .025 has affected the operation of the engine.

The Court: Is that twenty to twenty-five thousandths of an inch?

The Witness: Yes, sir.

The Court: That is, a shortening in excess of
785 that, in accordance with your tests, will adversely affect the functioning of the plug, is that what you are saying?

The Witness: Yes, sir.

Mr. Owen: (To witness) Did you intend to say it must be in excess of, twenty to twenty-five thousandths of an inch to affect the operation?

The Witness: It takes twenty to twenty-five thousandths of an inch.

The Court: Will affect?

The Witness: It will affect. However, I would
786 like to explain that I am considering the plug as normal or the recognized length of the center electrode. If the center electrode projected, say, a half an inch, shortening it a quarter of an inch probably would not make any difference because it would still not properly function.

The Court: We are assuming your plug as designed. I understand your testimony to be that shortening of that center electrode by twenty to twenty-five thousands of an inch will adversely affect the plug's operation.

The Witness: There is a noticeable change in engine operation—in temperature. 787

Q. What is the nature of the noticeable change? A. In some instances where there has been a noticeable change, it is the elimination of a slight pinging at higher rpm's.

Q. You would not have to be an expert to notice that, it could be noticed by anyone operating an engine, isn't that so?

Mr. Owen: I object to that.

The Court: Objection sustained. He does not need to tell what other people could observe. 788

Q. Mr. Stranahan said that a difference in the firing end of more than one-sixteenth of an inch would affect the performance. Did he get that information from you? A. No, sir.

Q. He did not consult you at all about the matter? A. No, sir.

Q. Then do I understand that you differ as to the amount of erosion or change that would be required in order materially to affect the performance? 789

Mr. Owen: I object to the question unless the witness has read the exact statement of Mr. Stranahan.

Mr. Hood: I will be glad to read it to him.

Q. I will read you this statement from the record, page 27 in this case, and I ask you whether you agree with this testimony by Mr. Stranahan:

"We have learned from experience that a change of 1/16th of an inch, more or less, in one of the

790 critical dimensions in the firing end of a Champion plug often unfits such plug for the most efficient service in the motors for which it was originally recommended, even when the plug is new."

A. I don't believe that that statement states it is the center electrode projection.

Q. Well, do you agree with this general statement? A. Yes, sir.

Q. So that there will be no misunderstanding, Mr. Sibley, I am not talking about the distance between the end of the core and the end of the center electrode, I am
791 talking about the total length of the center electrode. Would you say— A. Your total length of the center electrode is the distance from the end of the core to the end of the center electrode—of the exposed portion.

Q. Oh, that is where the misunderstanding is. A. No, sir, I have been referring to the projection of the center electrode past the end of the spark plug shell.

Q. Well, what I want to find out from you, Mr. Sibley, is how much the center electrode can erode from use, without regard to the condition of the insulator, so as to change its position in the cylinder to the point where it
792 affects the firing of the explosive mixture?

Mr. Owen: I object to the question as indefinite and immaterial.

The Court: Well, if I understand the question, I think it is merely repetitious. The witness has told you, Mr. Hood, if I understand his testimony, that a variation in the projection of the center electrode of .025 of an inch will adversely affect the operation of the spark plug.

(To witness): Am I correct, is that your testimony?

The Witness: Yes, sir. 793

The Court: But you are asking him what he means by adversely affected?

Mr. Hood: No, Judge, it seems that there was some confusion that has now been clarified.

The Court: What is it that you want to know further?

Mr. Hood: I am not talking about the length of the center electrode relative to the length of the porcelain.

The Court: But he is.

Mr. Hood: Yes, but I want to ask him a different question. That is why I am reframing it. 794

Q. What I want to know is how much erosion can take place in the center electrode, without regard to its projection below the porcelain, so as to injuriously affect not the heat range of the plug but the position of the spark plug in the cylinder—but the position of the spark in the cylinder to the extent that it would be noticed in the operation of the engine, in ordinary motoring?

Mr. Owen: I object to the question as irrelevant and immaterial and involved. How much erosion there is in these plugs is not in this case. 795

Mr. Hood: It is in the case.

Mr. Owen: I will be glad to have you explain why it is.

Mr. Hood: Having to explain in front of a witnes exactly what I want to get from the witness.

The Court: Do you want the witness to leave the room while you are explaining?

Mr. Hood: Yes, sir.

796 The Court: Well, if your purpose is so subtle that you cannot afford to disclose it, perhaps we had better dispense with it.

Mr. Hood: I don't want to fence with your Honor but I want to find out how important a change in the position of the spark is with respect to a new plug.

The Court: How is that within the issues of this case which is extremely simple—have you the right to sell as a Champion spark plug something which has lost that character? That is all there is in this case.

797 Mr. Hood: Exactly and one issue would be the position of the spark in the cylinder.

The Court: When you talk about the extent of the erosion you mean, in plain English, how much it is worn out.

Mr. Hood: How much is worn away.

The Court: Well, haven't we been talking for the last half hour about the change in the projection of the center electrode; isn't that what we are still talking about?

Mr. Hood: No, your Honor, I have this in

798 mind——

The Court: Well, what is it you are talking about?

Mr. Hood: I am trying to explain. In use there seems to be a change in the size of the insulator as well as that of the center electrode so that there would be a relative change between the length of the insulator and the length of the electrode, in which I am not intersted. I confined myself solely to the change in the length of the center electrode so far as it affects the spark position alone, without regard to the heat range of the plug.

The Court: Well, isn't your question—do you know how much change there would have to be in the projection of the center electrode to effect a change in the position of the spark in the cylinder? 799

Mr. Hood: Yes, Judge, that would affect the performance materially.

The Court: Well, you see, when you get into the field of whether it would affect the performance of an engine materially, you are going outside of this witness' domain.

Mr. Hood: He says that he has conducted practical tests.

The Court: (To witness) Are you able to tell us, Mr. Witness, how much of a wearing away or disappearance or change in the length of the projection of the center electrode is necessary to affect a change of position of the spark in the cylinder—are you able to tell us that? 800

The Witness: In the experimental tests which we have conducted, yes.

The Court: Tell us what the result is.

The Witness: In one particular instance where the electrode was a given length and with that longer electrode, we had a noticeable pinging, and in shortening it the pinging was overcome. 801

The Court: Now, are you able to tell us how much of a shortening took place?

The Witness: We shortened it approximately twenty-five thousandths of an inch.

The Court: Does that answer your question, Mr. Hood?

Mr. Hood: Yes, sir.

Q. Was that a representative engine or a particular special engine under study? A. That was a production

802 engine and the test was conducted because there had been complaints of pinging in the production engine as it was delivered in the cars to the public.

Q. When you made this change of twenty-five thousandths of an inch, did you make change in the insulator or otherwise in the plug without affecting the heat range of the plug? A. We made no other change except a shortening of the center electrode, which also changed the heat range of the plug very slightly.

Q. So that what you are referring to about eliminating preignition there was due to a change in the heat range of the plug rather than the position of the spark?

803

Mr. Owen: I haven't heard the witness say anything about preignition.

Mr. Hood: He said "pinging".

The Court: I understood him to say there was a very slight change in the heat range of the spark plug.

(To witness); Is that what you said?

The Witness: Yes, sir.

The Court: Now, was the removal of the ping, in your opinion, due to a change in the heat range or a shortening of the center electrode?

804 The Witness: It was due to shortening the center electrode which automatically changed the heat range, because the length of the electrode projecting in the cylinder was the part which was overheating, which was causing the pinging.

Q. What I want to know, Mr. Sibley, is without regard to the heat range of the plug, how much of a change of position of the center electrode materially—in so far as it affects the position of the spark in the cylinder—materially affects the operation of the engine?

Mr. Owen: I object, your Honor, because the question has already been answered. 805

Mr. Hood: It has not.

The Court: I do not know whether the witness is required to say whether the change would be described in given percentage as a change in heat range and in another percentage as a change in the length of the electrode. I think he has told you that the two are associated, that one necessarily brings about the other.

(To witness): Is that so?

The Witness: Yes, sir.

The Court: Now, he is not required to split hairs about it. 806

By Mr. Hood:

Q. Do I understand that the change in the heat range changes the position of the spark in the cylinder? A. Not always, no, sir.

Q. One has no relation to the other, isn't that so? A. The shortening or lengthening of the electrode can make the plug run hot or colder, which changes the temperature at which that plug is operating.

Q. But, Mr. Sibley, the position of the spark with reference to the possibility of the stratification of the gases in the cylinder is something that is separate and independent from the heat range of the plug, isn't it? A. The burning of the gases is what causes the plug to heat up and those incoming gases also have a cooling affect as well as a heating effect and if the electrodes are projecting into that path of the fuel, they can be cooled as well as heated. 807

Q. Mr. Sibley, there are two things you have in mind when you design the firing end of your plug, the heat

808 range and the position of the spark in the cylinder, isn't that true? A. Yes, sir.

Q. And those are the only things you have in mind, isn't that so? A. Not exactly.

Q. What other things do you have in mind in your design? A. The fit and top clearance and life.

Q. Every spark plug has to clear the top of the piston, doesn't it? A. Yes, sir.

Q. Now, in addition to clearing the top of the piston, the object of the design of the firing end of every one of your spark plugs is two-fold, the heat range and the position of the spark, isn't that so? A. Yes, sir.

809 Q. And of the two, the heat range is by far the more important, isn't it? A. Yes, sir.

Q. The position of the spark is comparatively unimportant, only taken into consideration in case there is stratification in certain engines under certain conditions, is that not so? A. Yes, sir.

Q. And whether there is stratification depends upon the type of gasoline, the conditions of operation, the condition of the carbureter and the turbulence of the charge, is that not so? A. Yes.

Q. Now, did you find in examining any of the plugs reconditioned by the defendants any change in the posi-
810 tion of the spark in the engine that would materially affect the performance of the plug in the engine, in case there was stratification? A. Yes, sir.

Q. And what change did you find in the position of the spark? A. The center electrode has been shortened.

Q. Shortened by what means? A. Either by burning or by cutting away.

Q. And how much had it been shortened? A. Some of them had been shortened in excess of thirty-six thousandths.

Q. Did you put any of them in an engine to determine whether thirty-six thousandths of an inch, in some of these plugs, materially affected the performance of the engine? A. Was your question, did I put any of those reconditioned plugs in? 811

Q. Yes, sir. A. No, sir.

Q. You had the testing equipment and the engines to do it, had you not? A. Yes, sir.

Q. So that you really don't know whether any change in these reconditioned spark plugs has materially affected the position of the spark to the extent that it would affect the performance in the engine, do you? 812

Mr. Owen: I object, your Honor. The witness has not so testified. He testified that he does know.

The Court: What concerns me is what has that to do with the right of the defendant to sell these Champion spark plugs.

Mr. Hood: I am coming to that.

The Court: You are there, you have been there ever since this case opened but you keep wandering off.

Mr. Hood: I want to get on these two subjects, heat range and position of the spark.

The Court: Please get down to the issues in this case. What right has the defendant to sell, as Champion spark plugs, those devices of plaintiff's manufacture which have been materially changed in use? That is the question in this case, Mr. Hood. 813

Q. Well, getting away from the position of the spark in the cylinder, Mr. Sibley, and discussing heat range: You conducted no practical test of any kind to determine whether the heat range of these plugs had changed, did you? A. No, sir.

814 Mr. Owen: You mean these forty plugs?
Mr. Hood: Yes.

Q. Now, what types of plugs of defendants that plaintiff has put in evidence—I will withdraw that.

Q. The #7 plug, #7 Champion plug is a plug that originally, when manufactured, had a very wide latitude of heat range, isn't that so? A. I don't believe I can answer that question. I don't know what you mean by very wide latitude of heat range.

Q. Isn't it what you call an extra range plug? A. I can explain what extra range means.

815 The Court: (To witness) Tell us what it means—what was the heat range?

The Witness: The extra range as referred to in there is the particular contour and shape of the insulator, which was, as I explained yesterday, due to that shaped insulator, with the large diameter on the extreme firing end and the neck section which gave us that broad fouling range and made the plug less susceptible to fouling in an oily engine.

816 The Court: What is the broad range, from what to what?

The Witness: That means it would operate in an engine a little bit longer or better if the engine were passing some oil which fouls spark plugs.

As heat range is measured, we use a given yardstick and the plug is so designed that it has the same ability to fit within that heat range bracket and in changing the shape of the insulator, the insulator is so designed so it itself, it is within that heat range bracket but due to the contour and

shape of the core, it has a fouling range and was termed an extra range plug. 817

Q. Now, an automobile engine operates at a certain operating temperature which ordinarily depends on the operation of the engine and the efficiency of the cooling system, isn't that so? A. It operates at varying temperature, due to the class of service, whether driving slow, medium or high speed, and carbureter settings may have an effect on cylinder temperature.

Q. And a spark plug that is suitable for that engine is one which will function at the temperatures at which that engine operates, isn't that so? A. Usually. 818

Q. And the object of your spark plug design, a new Champion spark plug, is to give that plug a heat range which is in excess, both ways, of the operating variations of a particular engine, isn't that so? A. It has a range to take care of both speed driving, ideal speed and high speed when the engine is still in normal condition.

Q. And the C-7, the Champion #7 that has been offered in evidence by the plaintiff as a defendants' output, they are plugs that when new had an extra wide heat range, isn't that so? A. The number 7 plug in the exhibit had a wide enough heat range to take care of the particular engine for which it was originally designed and adapted 819 and due to the shape of the insulator in that particular plug, it had a substantial increase in fouling range, on the fouling side.

Q. Now, because this particular plug had an extra large heat range, it was suitable for use in a number of different automobile engines, isn't that so? A. It is recommended for a number of automobile engines and it is suitable for use in those.

Q. I believe you testified that with reference to #7, these #7 plugs, the porcelain core of the firing end had

820 been shortened somewhat as the result of use or reconditioning or both? A. They had been shortened since they were originally manufactured to what was in accordance with our original manufacture.

Q. And the shortening of the porcelain core caused a somewhat longer projection of the center electrode below the porcelain core, isn't that so? A. Not in every case because in some cases the end of the wire also had been cut off, so that the actual projection from the core to the end electrode did not remain constant or the same as the new plug because the core was cut back.

Q. But there was a general tendency in the shortened
821 insulator to automatically increase the projection of the center electrode?

The Court: (To witness) He means relationship because of one element being shortened, does that lengthen another?

Mr. Hood, if you will make your questions a little clearer, the record might read better.

Q. Did you understand the question? A. In some plugs where the end of the center electrode had not been shortened and the core was shortened by some means, there
822 was and is a greater exposure or projection of the center electrode below the end of the core.

Q. Now, the shortening of the porcelain on the firing end has a tendency to make the plug run cooler because the heat has a less distance to travel to the cooling water in the cylinder, isn't that so?

The Court: I don't think I understand that question.

Mr. Hood: I will withdraw the question.

Q. Mr. Sibley, the shortened porcelain has a tendency 823
to make the plug run cooler, has it not? A. In shortening the insulator, it is further back out of the firing zone and would run slightly cooler with a narrower fouling range.

Q. Now, the increase in the exposure of the center electrode has a tendency to make the plug run somewhat hotter, has it not? A. Increasing the exposure of the center electrode would make that portion of the plug run somewhat hotter, yes.

Q. So that the shortening of the porcelain and the accompanying increase in the exposure of the center electrode develops two opposite tendencies which tend to cancel each other out so far as either one affects the heat 824
range of the plug, isn't that so? A. No, sir.

Q. Why not? A. Because you have the shortened insulator which decreases the fouling range.

Q. But shortening the porcelain makes the plug run cooler and increasing the length of the center electrode makes the plug run hotter, isn't that so?

The Court: He has already said that, do you want him to repeat it?

Mr. Hood: No. I will withdraw the question.

Q. All of these critical measurements that you spoke 825
about in your direct examination on the firing end of the Champion spark plug are designed with the purpose of effecting two things, the heat range of the plug and the position of the spark, is that not so, sir? A. Plus the best performance in a particular engine.

Q. That is a generality which is dependent on the heat range of the plug and the position of the spark? A. Not in every case, no, sir.

Q. In exceptional cases it is not true? A. Yes, sir.

826 Q. Will you tell his Honor what the exceptional cases are? A. In one Studebaker engine the plug itself did not operate good unless we had a greater exposure of the center electrode.

Q. That affected the heat range of the plug, didn't it? A. That made the center electrode run hot.

Q. And it affected the operating temperature of the plug, didn't it? A. It affected the temperature of the center electrode but in taking a heat reading or temperature reading at the point where the heat goes into the cooling water, there would be no change in the spark plug.

827 Q. Mr. Sibley, the importance of the critical measurements of the firing end of your plug is what they indicate about the heat range of the plug and the position of the spark, isn't that so? A. Yes, sir.

* * * * *

Q. The purpose of examining the critical measurements of a spark plug is to infer the heat range and the position of the spark? A. Yes, sir, and a change in the critical dimension will change the operating temperatures of those plugs.

Q. But any change of the critical measurements of a
828 spark plug is meaningless unless the change in the measurement is such that it does affect the heat range or the position of the spark, isn't that so? A. Yes.

Q. Then, the material question of difference between the new Champion spark plugs and these plugs offered in evidence is the heat range of the #7 and these reconditioned #7's?

Mr. Owen: I object to that question as containing a misstatement of the witness' testimony.

The Court: I think it is more argumentative than factual. However, if he can get the witness to express an opinion that the defendant has made no material changes in these spark plugs, I suppose he is entitled to try. 829

Some time or other we will have some witness on the other side of the case. I would be very much interested in hearing their testimony.

Of course, within proper range you can try to make this witness yours if you want to, but I really think we would make better progress if we got into your case, Mr. Hood.

(To witness): He is asking you whether in these exhibits we are talking about there has been any change in the heat range. 830

The Witness: In all of the testing we have done some of the changes that have taken place in those plugs has been enough to change the heat range of the plug.

Q. On some of the plugs you infer that the heat range has been changed? A. Yes, sir.

Q. Now, you possess in your laboratories equipment for determining as a fact what the heat range of a plug is, don't you? A. What was that question again, sir? 831

Q. I say, you possess in your laboratories pyrometers and other equipment for determining as a fact what the heat range of a plug is, don't you? A. You cannot determine heat ranges with pyrometers in a laboratory, it is not quite that simple.

Q. You determine heat ranges and give out thermal curves for your plugs, don't you? A. I don't believe you ever saw a thermal curve that the Champion Spark Plug Company put out.

832 Q. Don't you determine the heat range in your laboratories of your new plugs? A. Yes, sir, we have a yardstick by which I have already stated they determine the heat range of spark plugs.

Q. You don't do that by taking the measurements of the new plugs, do you? A. No, sir.

Q. How do you do it? A. By engine testing, the ability of a plug to operate in an engine under certain recognized conditions.

The Court: Can we agree, as the witness told us, just a few moments ago, that these plugs in
833 evidence, Plaintiff's Exhibits 1 to 4 inclusive, have not been tested as to their heat range? Can't you accept that counsellor?—never mind why they were not, but the fact is they were not.

Mr. Hood: Very well, your Honor.

* * * * *

Q. Will you look at your chart or your report of these plugs in evidence and specify in which ones, in your opinion, there has been a change in the heat range? A. I think that would take me about a half an hour to out-
834 line all of the plugs on this chart.

The Court: Is the chart in evidence?

Mr. Hood: Yes, sir.

The Court: (To witness) I don't think you have to read it, the chart is in evidence.

Q. Well, are you able to pick out one plug out of there where there has been a change in the heat range in your opinion? A. Yes, the plug identified as B-3.

Q. Is that the worst example that you find?

The Court: You asked him for one, not for the worst. 835

The Witness: It would take me a half an hour to go through this and pick out the worst ones. I glanced at the first sheet on the top and I picked out this B-3.

Q. B-3? A. Yes.

Q. And how much, in your opinion, from the records that you have, has the heat range of the B-3 been changed? A. What are we using as a yardstick?

Mr. Owen: I object, your Honor. 836

The Court: (To witness) Are you able to tell counsellor how much it has been changed?

The Witness: No, sir.

The Court: That's the answer. Now, go ahead, Mr. Hood.

Q. Has there been a change sufficient to have it go to the next hotter or colder type of plug?

The Court: He told you that there has been a change in the heat range, in his opinion. Now, you can put a man on the stand who says there has been no change and then we will have an issue. 837

Q. But as to some of these plugs, in your opinion there has been no change in the heat range?

Mr. Owen: He does not say that.

The Court: (To witness) Well, do you say it now—and by "these plugs" we are talking about the plugs comprehended in Plaintiff's Exhibits 1 to 4?

838 The Witness: There are a few plugs in there where there have been only slight alterations made, in that they are only slightly different than the original manufacture and we expect no change in those.

Q. What I am interested in, Mr. Sibley, is can you give me an idea of how many plugs in evidence have been changed sufficiently in heat range to have the heat range of a different type of your plug?

839 Mr. Owen: The witness has just stated that it would take him half an hour.

The Court: I suppose counsel doesn't care how much time he wastes.

Mr. Hood: I don't want to waste time, your Honor.

The Court: That is exactly what you are doing. I don't care whether the percentage is 25, 53 or 68 or what. He says there are some as to which there has been no change.

Q. As to the plugs where there has been no change in
840 heat range, any changes in the so-called critical measurements of the spark plugs is meaningless and unimportant, isn't that so?

The Court: Not from the legal standpoint. That is the thing that you seem to be unwilling to grasp.

Mr. Hood: That is the point where I respectfully differ with your Honor.

The Court: And you have a perfect right to. This spark plug is plaintiff's design. Whether it is wise or foolish does not enter into it, it is plain-

tiff's design, and this design the plaintiff has the 841
right to protect with its trade mark.

Mr. Hood: That's right. What I have in mind is this, Judge——

The Court: Never mind argument at this time.

Mr. Hood: All right.

Q. Now, cleaning a plug does not restore any worn portion of the plug, does it? A. No.

Q. And wearing is incidental to the use of a plug in an engine, is it not? A. Wearing of what?

Q. The firing ends of the porcelain and the electrodes? A. The wearing of the electrodes is incidental to use. 842
There is very little wearing of the insulator due to use.

Q. Well, now, cleaning a plug by sandblasting you recommend as a normal procedure use of the plug in the engine, don't you?

The Court: No, he does not. You have to take it out to sandblast it and that is not use in the engine.

Q. I mean, use during the life of the plug? A. Yes.

Q. And this sandblasting cleaning that you recommend as part of the general use and operation of your 843
plug by a motorist tends to wear the firing portion of the plug, doesn't it? A. It can very well cut away the ceramic or firing end of the plug if the cleaners are used too long on the plug.

However, our recommendations state that cleaning should be taken care of at regular intervals, in some every 2500 miles. The plug does not have much accumulation on it at that time and it requires only a few seconds sandblasting to remove that deposit and with a

844 few seconds sandblasting there is very little cutting away from the insulator, not enough to be noticeable to the naked eye.

Q. You make allowances in your manufacturing, in computing the shape of the porcelain, in regard to the heat range and position of the spark for such wearing as would take place in the sandblasting of your firing end? A. In the order of one or two thousandths.

Q. So that ordinary sandblasting operations do not affect the heat range or performance of Champion spark plugs, does it? A. Not unless the parts are cut away due to sandblasting.

845 Q. But there is some cutting away that takes place in any sandblasting so that you do allow for ordinary sandblasting and that does not affect the operation of the plug, isn't that so? A. If the sandblasting operation is properly carried on and the plugs are cleaned at regular intervals, it does not require enough sandblasting to cut any appreciable amount of the insulator away, in cleaning the insulator.

Q. Then if you recommend this cleaning with sandblasting every 2500 miles and that the plug be discarded after 10,000 miles of use, those three sandblasting operations on the same plug, if done with ordinary skill, would 846 not change the firing end of your plug to such a degree as to affect the performance? A. No.

Mr. Owen: I object, your Honor, that is arguing with the witness. I think he should ask the witness what the effect would be.

The Court: Well, it is cross-examination. The only trouble, I think, is the use of the word "ordinary". What is ordinary, I suppose, differs with various individuals. What is recommended in con-

nection with the plaintiff's sandblaster or cleaner, I suppose is what counsel is talking about. 847

Q. When your plugs are installed in the great majority of automobile engines, the hex of the plug that receives the wrench is readily visible from outside the engine, is it not? A. No, sir.

Q. I show you defendants' Exhibit B, page 8, the Auto-Lite Spark Plug Manual, and I ask you if this drawing of the relative positions of a spark plug in an engine cylinder head, in use, is not a fair and correct representation of their relative positions (handing witness Manual)? A. No, sir, I do not believe it is a fair 848 representation of the relative positions of the spark plug and I can explain that by saying that this appears to be an 18 millimeter plug and now, with 14 millimeter plugs, they are being set still lower and more deeply recessed due to the care of the cylinder head and the cooling medium.

Q. It is a fair and correct representation of the 18 millimeter plugs therein described? A. This is a more or less schematic drawing and in some engines the recesses are still deeper wherein special thin wrenches have to be used and in some engines the plugs are covered up with plates. 849

Q. Isn't that a representative engine head? A. Yes, this is a drawing of a cylinder head but I could not identify it as an actual drawing of a cylinder head that has ever been in use.

Q. From your experience with automotive engines, in an engine in which the relative positions of the spark plugs and the engine head are shown in that drawing, isn't it comparatively easy for a person, from outside the engine, to see the hex of the spark plug? A. No.

850 Q. Now, the real test of these reconditioned plugs as compared with the new plugs of the same type number is the actual performance that these reconditioned plugs give in an automobile engine as compared with performance of new plugs, isn't that so?

Mr. Owen: I object to the question.

The Court: What is that question?

(Above question read to the Court by reporter.)

The Court: I will sustain the objection and my reason for doing it is, I think the question in this case is whether the defendant is selling the plain-

851 tiff's product as the plaintiff's product is put out. The question is not, as was pointed out to counsel in the opinion on the preliminary injunction, whether defendants' product operates, that is not the question. The question is whether the defendants have the right to use plaintiff's trade mark and that depends, in this case, on whether the defendants are selling plaintiff's spark plugs and if you would only adhere to that issue, Mr. Hood, we would make so much better progress.

Mr. Hood: Exception, your Honor.

852 Q. All of the trade marks that you found on those plugs, Plaintiff's Exhibits 1 to 4, were placed there by the plaintiff, were they not?

The Court: Are you referring to what they call the decoration on the insulator?

Mr. Hood: Yes, Judge.

The Witness: I recognized it and identified it as being put on by the Champion Spark Plug Company, Ceramic Division, Detroit, Michigan.

Brace H. Sibley—Recalled—for Plaintiff—Cross.

Q. Then, when you examined these plugs you recognized them as spark plugs of the plaintiff's original manufacture? A. Yes, sir. 853

Q. And from your examination you recognized them as Champion spark plugs that had been used? A. Yes.

Q. And from your examination— A. That had been used or at least changed in some respect.

Q. But you recognized them as plugs that had been used—they were not new plugs, were they? A. They were not new plugs, no.

Q. And you recognized them as used Champion plugs that had been cleaned and repaired, did you not? 854

Mr. Owen: That is a trick question, your Honor, and I object to it.

Mr. Hood: There is no trick at all about it.

Mr. Owen: That is the very question that your Honor has been trying to get before counsel and that is, whether these are Champion plugs, and this question intermingles or brings in the name Champion plug.

The Court: I presume if he got an affirmative answer he would argue about it in his brief but that is not binding upon this Court.

The witness has told you, Mr. Hood, that he recognized these plugs as having originally been the product of the plaintiff. Now, anything beyond that is really not going to have any effect on me. It would be all right if you had a jury here but you haven't a jury. 855

Mr. Hood: Exception.

Q. Mr. Sibley, in your opinion, if in the use of one of the Champion spark plugs the side electrode was suffi-

856 ciently eroded that while bending would restore the gap it would barely restore the gap, that plug in use, even though regaped, would soon fail, would it not?

The Court: (To witness) Do you know enough to answer that question? Has counsel told you enough? Listen to the question.

(Question read by the reporter.)

The Witness: I would like to explain that the majority of the wire burning takes place on the center electrode and the complete burning of a side electrode is indication of a great many miles of
857 service and I do not believe I ever ran into a case where the spark plug failed because the side electrode dropped off in service. The engine might start to miss or there may be intermittent firing when the gap becomes wide due to the old worn-out side wire becoming still more worn.

Q. Well, assuming the facts that I have stated.

The Court: Is there enough there to enable you to make an intelligent assumption? When you talk about something being barely, does it mean any-
858 thing to you?

The Witness: No, sir.

The Court: It doesn't mean anything to me. If there is an objection to the question which I have been hoping to hear, I will sustain it. In the absence of an objection, I will exclude it.

Mr. Owen: I do object to it, your Honor.

The Court: Objection sustained.

Mr. Hood: Exception.

Brace H. Sibley—Recalled—for Plaintiff—Re-direct.

Q. Mr. Sibley, if the side electrode is eroded in a spark plug, considerably, in your opinion isn't the welding on of a new electrode a preferable repair to trying to bend the side electrode? 859

Mr. Owen: I object to that as immaterial in this case.

The Court: I do not think this witness is here to state what the defendant ought to do. The objection is sustained. I think if you would get into your own case and stop trying to use this witness as your witness, you may make better progress.

Mr. Hood: I think you are right, Judge. That is all. 860

Re-direct Examination by Mr. Owen:

Q. During cross-examination, Mr. Sibley, your attention was called to the plug indicated as A-7 on Exhibit 18 and your attention was called to the fact that the center electrode on that A-7 plug appeared to project further from the shell than did the electrode of the new plug shown at the left of that exhibit. Will you explain that? A. The drawing of the H-10 is a drawing to scale of exactly what it says, "A present H-10" and the drawing identified as A-7 is as we found the plug with that projection of the center electrode and when that plug was originally made it was identified as H-10A, which had a center electrode projection, as originally manufactured, of thirty-six thousandths as against the new type as made today of fourteen thousandths. 861

The new drawing is not a new drawing of the same type of H-10 as is shown in Exhibit A-7.

Q. In your direct examination, you explained a change that was made in your H-10 plug about the year 1936 in

862 which you explained that shortening the center electrode by perhaps twenty-five thousandths of an inch overcame an objection that was raised by the manufacturer, the Ford Motor Company. Is this change that you have just mentioned in the A-7 plug, is that the same change that you testified to before? A. That is the change that was made in one of the Ford engines, from thirty-six thousandths to fourteen thousandths and I testified the other day about that.

However, that particular change—I am wrong, I think, in the 1936 date. That date was about 1940, and the plug was used in their six cylinder engines.

863 However, the 1936 change, at that time they were using the H-10 plug, which had a center wire projection of sixty-two thousandths of an inch and it was changed at that time to thirty-six thousandths of an inch projection of the center electrode below the end of the shell to eliminate the noticeable pinging that had been brought to their attention and also which we found in our own testing of the engine.

Q. Can you state when the manufacture of the plug like this one marked A-7 in Exhibit 18 was discontinued? A. A-7 is H-10A and the manufacture of that was discontinued in October of 1940.

864 Q. And after that, what was the dimension of the center wire in the H-10 plug? A. After that, the dimension of the projection of the center wire below the end of the shell was fourteen thousandths.

Q. And that is as it is at present? A. Yes, sir.

Q. Wasn't there an intermediate change between the H-10A with the sixty-two thousandths projection——

The Court: He already testified to that. The first change was sixty-two to thirty-six and then thirty-six to fourteen.

The Witness: That is right. 865

Q. In your direct examination you referred to your #7 Commercial plug? A. Yes.

Q. Have you a print of that plug? A. Yes, sir. (handing counsel drawing).

Mr. Owen: I offer this drawing in evidence. It is a drawing of the Commercial #7 plug.

(The above drawing received and marked, "Plaintiff's Exhibit 21.")

Q. Now, mention has been made of the return of 866
plugs to the plaintiff company by owners with some complaint of inefficient service. I will ask you to explain just how you treat those plugs when they come in. Take first the two-piece plug. A. Well, the two-piece plug is first examined to determine whether it is suitable for servicing and if it is found that the dimensions do not still correspond to the dimensions originally, the plug is discarded and scrapped, with the exception of the center electrode and the side electrode, in a two-piece shell, because in those the core can be replaced with a new center electrode and a new side wire can also be put on the shell very handily. 867

So our common practice is, first, on inspection if it shows that only cleaning will restore and that the dimensions are still the same as the original manufacture, they are only cleaned, the gaps reset, they are repacked and sent back to the customer.

In the case of any damage to the insulator or wearing away of the center electrode or the side electrode, those parts are replaced, the metal parts of the two-piece plug are reglued, the plug then inspected and the gap set inspected, then packed and sent back to the customer.

868 Q. And those plugs, when they are sent back to the customer, respond to the original dimensions for that plug? A. Yes, sir.

Q. What do you do in connection with the one-piece plug? A. As-received, they are examined and if they still show the original dimensions they are put through a regular cleaning process and then an inspection process, the gap setting is checked, then they are packed and sent back.

Those that do not lend themselves to servicing due to the electrodes or anything else that might be found wrong with the plugs, those plugs are discarded and we 869 do not make an effort to recondition a plug that shows any wear beyond our original dimensions.

Q. In other words, unless the plug can be restored to its original dimension, you junk it, is that it?

Mr. Hood: I object to counsel leading witness.

The Court: He is merely asking if that is what his testimony means.

(To witness): Now, tell us if that is not what your testimony means?

The Witness: Yes, sir.

870 Q. You mean that is what your testimony means? A. Yes.

Q. You have examined these forty plugs, plaintiff's exhibits 1, 2, 3 and 4? A. Yes, sir.

Q. I will ask you if those plugs came into you from other owners, what you would do with them; in other words, would you clean them or restore them or attempt to restore them or would you discard them?

Mr. Hood: I object to that as a hypothetical question and speculative.

The Court: Mr. Owen, how does that help me? How would the answer to the question help a decision in this case? 871

Mr. Owen: I cannot say it would, your Honor.

The Court: Thank you, I will sustain the objection.

Q. When you sell Champion spark plugs and give instructions regarding the gap setting, do you furnish any tools or implements for use in setting the gaps? A. The company furnishes gap setting tools to its dealers who, in turn, are instructed to pass them on to the gas stations and service stations. 872

Q. Approximately how many Champion plugs, automotive plugs, does the plaintiff make per week and let your testimony cover the fact for a year?

Mr. Hood: I object to the question.

Mr. Owen: The question is asked for this reason, your Honor. Counsel in cross-examination brought out the fact that a substantial number of our plugs are returned with complaints and I want to show what proportion those returns are to the output.

The Court: Well, I think the witness said yesterday that there was something like a hundred a week or was it a thousand?—I think we have it in the record. I do not know whether I can find it in my notes now or not. 873

Q. Well, would you mind stating now? A. The amount that we make or the amount returned?

Q. The number of automotive plugs that you make on an average per week?

874 The Court: Why don't you ask him what percentage of his output comes back with complaints?

Q. I will put it that way: What percentage do come back with complaints? A. A very small percentage comes back with complaints. Last year we had approximately three per cent. of the plugs that were returned and they were not all due to any defect or anything wrong with them. Some had been fouled and they were sent in for cleaning and servicing.

Q. Approximately three per cent.? A. I do not believe that I am in a position to give you the percentage.

875 Q. I think you should consider that answer. A. No, sir, there is not three per cent.

The Court: (To witness) What is your weekly output, average?

The Witness: Our weekly output is more than one million spark plugs.

The Court: And what is your average weekly return?

The Witness: Our average weekly return today is about five thousand per month.

The Court: About fifteen hundred per week?

876 The Witness: Yes.

The Court: Then, the relation is roughly between one million and fifteen hundred?

The Witness: Yes, sir.

The Court: That is a fraction?

The Witness: Yes, sir.

Mr. Owen: That is all, your Honor.

Re-cross Examination by Mr. Hood:

Q. In 1938, did you get back 12,000 a week? A. I have a record here. May I look at it? I don't believe

that it goes back to 1938 but I would like to look at it. I do not have the figures for 1938 but I have them for 1941 to 1944. I do not believe it was 12,000 a week—I think it was more likely 12,000 a month. 877

The Court: Well, if the suit was filed in 1944, would the 1944 figures be acceptable to you—how about 1941?

The Witness: A total of 95,544 were returned or about 7,962 monthly.

The Court: Well, call it 8,000 for easy figures.

The Witness: That is for the year 1941, for 1942, it was slightly in excess of 6,000. 878

The Court: Per month?

The Witness: Per month.

The Court: And what was the monthly output in those two years?

The Witness: Our monthly output was in excess of four million plugs per month.

The Court: And that is true for 1941 and 1942?

The Witness: Yes, sir.

The Court: Does that cover what you want, Mr. Hood?

Mr. Hood: Yes, Judge, thank you. 879

By Mr. Hood:

Q. Now, these operations you have performed or considered performing on plugs returned to you with complaints, are made with the question in mind of whether you should replace the returned plug with a new plug under your guarantee, is that right? A. No, in every case of a plug that is returned because some of the cases they are completely worn out and they have received their dollars and cents value, so that there was no adjustment or replacement made.

880 Q. What I want to know is, when you are deciding what you are going to do with the plug returned with a complaint, don't you have in mind whether or not the customer is entitled to a brand new plug under your guarantee? A. We see that he gets a plug to take care of his service, in most cases, with the exception of where the plugs have been completely worn out.

Q. So because of your guarantee you furnish a customer with a legitimate reason either a brand new plug or a plug so rebuilt with your own parts as to be indistinguishable in critical dimensions from a new plug, isn't that so? A. That is correct. However, I would
881 like to have the word "guarantee" cleared up—as to what our guarantee is.

The Court: (To witness) He is asking you what is your motive or what underlies the performance that you render, is it the guarantee or not?

The Witness: It is the liberal policy of our company to keep the customer satisfied.

Q. I mean the reason why you rebuilt the plug with your own parts instead of just cleaning and repairing them as defendants do, that is because of your guarantee
882 and the practice of replacing defective plugs with new ones, is it not? A. Yes, sir, and in certain cases we would write to the customer first and tell him how much it would cost to have those plugs put back in shape. In other words, he has had some dollars and cents value out of the purchase of those plugs.

Mr. Hood: That is all.

(Witness excused.)

Mr. Schaffer: The plaintiff rests, your Honor.

Mr. Hood: The defendant moves at this time to dismiss the complaint as to all three of the defendants on the ground that the plaintiff has failed to make out a prima facie case and moves to dismiss as to the defendant, Peter Sanders, on the further ground that there is no evidence that the defendant Peter Sanders is connected with the Perfect Recondition Spark Plug Company or has been connected at any time in the recent past or is or has been in the recent past engaged in any reconditioning activity. 883

The Court: I will reserve decision. 884

SAMUEL SANDERS, called as a witness on behalf of the defendants, was first duly sworn and testified as follows:

Direct Examination by Mr. Hood:

Q. You are one of the defendants in this case? A. Yes, sir.

Q. And what business are you engaged in? A. At the present time?

Q. Yes. A. The reconditioning of spark plugs.

Q. And were you engaged in that business at the time of the commencement of this lawsuit? A. Yes, sir. 885

Q. At the time of the commencement of the lawsuit were any other of the defendants in partnership with you? A. Harry Sanders.

Q. Was the defendant, Peter Sanders, associated with you in the reconditioning business in any way at the inception of the lawsuit?

Mr. Owen: If the Court please, I object to the question as leading. I want the witness to bring out the facts.

886 The Court: I think that is a shortcut. What was Peter's business—the complaint was filed when?—April, 1944—Why don't you ask him what Peter's business was in April, 1944, Mr. Hood?

(To witness): Who is Peter Sanders, is he a brother of yours?

The Witness: No, he is my father.

Q. Was Peter Sanders in the reconditioning business in April, 1944? A. No, sir.

Q. Was he at one time in the reconditioning business? A. Yes, sir.

887 Q. When did he terminate his connection? A. At the end of 1943 or the beginning of 1944.

Q. How long have you been engaged in the reconditioning business or selling or both, reconditioned spark plugs? A. Fifteen years.

Q. And will you tell his Honor how you happened to get into this business and what happened?

The Court: Why?

Mr. Hood: On the question of estoppel, your Honor.

Mr. Owen: We object to the question.

888 The Court: He says that it bears on the defense of estoppel.

The Witness: Fifteen years ago we had an automobile accessory store and repair shop and service station.

The Court: (To witness) Who is "we"?

The Witness: At that time, my dad was with me and my brother.

The Court: That means your brothers, Harry and Peter?

The Witness: My dad, and Harry is my brother. Peter Sanders is my father.

The Court: And you had what? 889

The Witness: An auto repair shop and service station. We serviced automobiles, tune-up jobs, during which we had to clean spark plugs that were in these automobiles and we did it with the hand methods, scraping the carbon with a thin knife, buffing and throwing them back into the automobile.

Through trade journals and advertisements of the Champion Spark Plug Company we learned of the reconditioning unit. We purchased one——

Q. May I interrupt you a moment. Where did you 890
obtain the reconditioning units? A. From the Champion distributor.

Q. Go ahead. A. We reconditioned these spark plugs with the Champion spark plug cleaner.

The Court: (To witness) Is that what you mean by a reconditioning unit?

The Witness: That's right, yes, sir.

The Court: A cleaner.

The Witness: A cleaner. At that time we accumulated quite a bit of old spark plugs and we decided to clean these spark plugs up and keep 891
them in stock so that we could save time when we would get these service jobs to do of cleaning up the plugs.

At times, when the motorist could not afford to buy a new spark plug, we offered a reconditioned spark plug and we would tell him that it was a reconditioned spark plug and we sold it as such. Gradually, these motorists who bought these spark plugs would tell their friends about them and——

892 Mr. Owen: I object to that, your Honor and move that it be stricken out.

Q. You cannot tell us what the motorists told their friends. A. Well, gradually our call for reconditioned spark plugs increased and the demand became so great that we decided to give up our auto accessory and service repair shop and devote most of our time to the reconditioning of spark plugs.

Then, from experience in cleaning these spark plugs, we devised our own sandblasting equipment and method of cleaning and reconditioning these spark plugs. We
893 sent out men to purchase old spark plugs, used spark plugs, and we reconditioned them and sold them as such.

Q. What instructions did you give these collectors or purchasing agents that you sent out? A. We told these collectors——

Mr. Owen: (To witness) Were they employees of yours?

The Witness: They were not on our payroll. We purchased the spark plugs from them.

Mr. Owen: That they brought to you?

The Witness: That they brought to us.

894 Mr. Owen: You did not send them out?

The Witness: We advertised for men but we did not put them on our payroll.

The Court: Proceed.

The Witness: We instructed them to bring in used spark plugs but they had to be selected so that they would give service to the motorist after being recleaned or reconditioned.

Then, through a medium of advertising in the trade journals, daily newspapers, radio and bill-

boards and signs on our establishment, our trade 895
increased greatly. We then sold these plugs as reconditioned plugs to distributors, fleet owners, taxicab fleets and truck fleets and anybody who wished to purchase a reconditioned spark plug.

Q. And that is your business at the present time? A. Yes, sir.

Q. In what localities have you been selling these plugs in recent years? A. Throughout the world.

Q. Well, will you name some of the countries that you have in mind, when you say throughout the world? A. Mexico, Brazil, Chile, Africa, Java—different parts of 896
the African continent, Italy, Egypt and the like.

Q. Have you sent any reconditioned plugs out on Lend-Lease? A. Well, our agent sent orders to Italy which is in Lend-Lease and also Egypt.

Q. Did you always use the word "reconditioned" or "recondition" in the trade-name of your partnership? A. Yes, sir.

Q. Did you always have the name on the front of your store or plant? A. Yes.

Q. I show you a photograph and I ask you what that is? A. That is the picture of the front of my store. 897

Mr. Hood: I offer it in evidence.

Mr. Owen: When was it taken?

Mr. Schaffer: Your Honor, may I examine the witness on this photograph?

The Court: Yes.

By Mr. Schaffer:

Q. When was this photograph taken, Mr. Sanders? Approximately. A. About a week ago.

898 Q. And that shows the front of your store at the present time? A. Yes.

Mr. Schaffer: No objection.

(The above Photograph received and marked, "Defendants' Exhibit F.")

Q. Did the front of your store, the signs and the advertising matter shown in this photograph, exist in the same general condition at the time that this lawsuit was started? A. The store front has not been changed in the past five years.

899 Q. Have you any of your bills or invoices in court? A. I have some on the table there.

Q. Will you produce them, please? A. Yes, sir (witness leaving stand to produce invoices).

Q. Have you some of your bills or invoices that you use in your business with you? A. Yes, sir.

Q. May I see them, please? A. Yes, sir (witness handing counsel papers).

Q. I show you this object and I ask you if this is one of your order blanks? A. Yes, sir, it is.

Mr. Hood: I offer it in evidence.

900 The Court: Why don't you offer them altogether?

Q. I hand you a copy of an order blank, a billhead and a letterhead and I ask you if those are documents used in your business? A. Yes, sir.

Mr. Hood: I offer all three in evidence.

(The above received and marked, "Defendants' Exhibits G-1, G-2 and G-3.")

Q. Have you ever used order blanks, bills or letter- 901
heads that did not indicate that you were selling reconditioned spark plugs? A. Never did.

Q. And is this a sample of your advertising (handing witness paper)? A. Yes, sir.

Mr. Hood: I offer it in evidence.

(The above received and marked, "Defendants' Exhibit H.")

Q. Did you also advertise on the radio? A. Yes, sir.

Q. And over what radio station? A. Over a New Jersey network, I forget the name of the station. 902

Q. Did you also advertise in trade journals? A. Yes, sir.

Q. What trade journals? A. The Gasoline Retailer.

Q. Did you advertise in any newspapers? A. Yes, the Journal-American.

Q. And in all of this advertising, did you ever represent your output as anything but used or reconditioned spark plugs? A. No, sir.

Mr. Schaffer: I object to that.

The Court: Why do you object? I always understood—— 903

Mr. Schaffer: I think it is immaterial, your Honor.

The Court: Just avoid repetition.

Q. What original makes of spark plugs do you recondition? A. Champion, AC, Auto-Lite and Doering.

Q. Has there been any change in the makes that you select for reconditioning during the last five years? A. No, sir.

904 Q. Will you tell us whether or not the packaging of your output as shown on Plaintiff's Exhibits 1, 2, 3 and 4, is your standard packaging or does it vary in any way? A. That is standard packaging.

Q. Do you use the same package for the Auto-Lite, Doering and AC plugs? A. Yes, sir.

Q. And by what method, if at all, do you differentiate on the package whether the contents are original make Champions or some other make? A. By a rubber stamp on the front of the carton; denoting the type of plug contained inside.

Q. Now, on Plaintiff's Exhibit 1, I see a blank space
905 on the end "Make—Type—Size" and a rubber stamp "Champion 14mm. H-10"—is that the stamp that you are referring to? A. Yes, sir.

Q. And that would vary in accordance with the make and model of spark plug inside? A. That's right.

The Court: Are you telling him that or are you asking him that?

Mr. Hood: I am asking him, Judge.

The Court: Well, it sounds to me as though you were reciting something.

Mr. Hood: I will try not to lead him, Judge.

906

Q. I show you this photograph and I ask you what that represents? A. That is a picture of one of the shelves in the store. It shows the various boxes of Auto-Lite and AC reconditioned plugs and reconditioned Champion plugs, packed in boxes.

Mr. Hood: I offer that photograph in evidence.

(The above Photograph received and marked, "Defendants' Exhibit I.")

Q. Since this lawsuit have you made any change in 907
the stamping on the end of the boxes so far as Champion spark plugs are concerned? A. Yes, sir, we put the word "Ex-Champion".

Q. I show you this photograph and I ask you what this photograph is? A. This is a picture of a shelf in the store showing reconditioned Ex-Champion spark plugs.

Q. So that that picture shows the boxes prepared for shipment since the beginning of the lawsuit, is that right? A. Yes, sir.

Mr. Schaffer: (To witness) Do the words "Ex- 908
Champion" appear on all of the boxes or plugs shown in this photograph?

The Witness: May I look at it again, please?

Mr. Schaffer: I hand it to you.

The Witness: Yes, sir.

Mr. Hood: I offer that photograph in evidence.

(The above photograph received and marked, "Defendants' Exhibit J.")

Q. Now, will you describe your reconditioning process to the Court? A. The entire process?

Q. What you do when you get the plugs? A. When 909
we receive the plugs, we check them over and see that they are serviceable for reconditioning. Then, they are given a bath, cleansing and put out in trays to dry.

They are then stripped of gaskets and the top nuts are taken off and assorted.

They are then sandblasted and after being sandblasted, they are then buffed—the shell part of the spark plug is buffed, to take off the dust.

910 They are then sent to another man, who adjusts the gap of the spark plug. The top part of the insulator is then cleaned and then the shell is painted.

The Court: Is that the metal part?
The Witness: The metal part, yes, sir.

Q. Now, on your inspection——

Mr. Owen: He did not finish his answer.
The Court: Let the witness finish his answer.
The Witness: After the painting, they are given
911 to a man who stamps the word—now, I would like to get this clear—do you mean before the injunction or after? Before the case started or afterwards?

Q. First, tell us what you did before the case started? A. They were painted black or blue-black before this case started. Then they would go to a hot press stamping machine and the word "reconditioned" would be stamped on the hex of the spark plug.

They were then given to another machine which puts the terminals back on to them.

912 Q. And by "terminals" you mean what? A. The top nut. Then they are packed but throughout this whole production line, all of the employees are instructed to watch for any plugs that are not serviceable and to discard them when they see such.

Q. What do you watch for to determine whether or not the plug is serviceable? A. That the insulator is not cracked and your center electrode.

The Court: The center electrode what?
The Witness: Wire.

Q. What do you look for about the center wire? A. 913
It should be in a condition to be serviceable.

Q. And what do you do with the plugs you have determined have cracked porcelains? A. We discard them.

Q. And what do you do with the plugs you determine have center electrodes which you say are not serviceable? A. We discard those.

Q. I notice in these forty plugs, Plaintiff's Exhibits 1 to 4, there are new side electrodes. Does your entire output have new side electrodes? A. No, sir.

Q. Will you explain that to his Honor, please? A. We do not put side electrodes on all spark plugs but as spark plugs come in, if we find that they are serviceable by 914
putting a new electrode on, we put these spark plugs on the side until we accumulate a quantity so that we can run a production line and then we weld on side wires on these spark plugs.

Q. Do I understand you to say that out of the incoming plugs there is a certain percentage that you think would be serviceable if they had a new side electrode welded on? A. Yes, sir.

Q. And you take this percentage and set them aside for the time being?

Mr. Schaffer: I object to counsel leading the 915
witness.

The Court: He is repeating as though I did not hear it the first time.

Q. How many do you get together in a pile before you decide to take this batch and put new side electrodes on? A. Maybe two or three thousand.

Q. And when you run these two or three thousand through, how are they packaged with reference to your

916 general run of packaged plugs? A. They are all packed in the same box as a production run. They are not mixed with the other plugs.

Q. Can you explain to his Honor how it is that out of these forty plugs, forty plugs are packaged together with new side electrodes? A. That happened to be on a production run where we happened to put on side electrodes on those specific spark plugs, where they accumulated.

Q. Then, these plugs, Plaintiff's Exhibits 1 to 4, I take it, are only representative of that portion of your output that have new side electrodes, is that right? A. Yes.

917 Q. Did you give any of your reconditioned plugs in the past to Mr. Anderson and Mr. Cameron and Mr. Kasarjain? A. Yes, sir.

Q. Is there any difference that you know of between those plugs and your current output? A. No, sir.

Q. And have you tested, in operation, plugs reconditioned by this process of yours in comparison with new plugs? A. What's that?

Q. Did you ever test them in any engines? A. Oh, yes, sir.

Q. What did you find? A. That they functioned just
918 as well as the new plugs.

Q. Are you familiar with automotive engines? A. Yes.

Q. Are you familiar with their external appearance? A. Yes, sir.

Q. Will you tell his Honor what the condition is with reference to the visibility of the hex of an installed spark plug from the outside of an engine? A. Spark plugs are usually on top of the engine and they are visible with the naked eye when you look at the motor.

Q. What I am interested in is the hex of the spark plug, the part that receives the wrench, what have you to say about the visibility of that from the outside of the motor? A. It could be seen very clearly. 919

Mr. Hood: I think that is all.

Cross-Examination by Mr. Schaffer:

Q. Mr. Sanders, about what year did you start in the reconditioning plug business? A. Fiffeen years ago.

The Court: That would be about 1930?
The Witness: That's right. 920

Q. Is that also when your father and your brother started in the business? A. Yes, sir.

Q. Did you begin advertising as soon as you went into the spark plug business, the reconditioning spark plug business? A. As soon as our finances allowed it.

Q. When would that be, what year? A. I would say approximately a year or two after, I could not give no exact dates.

Q. Have you preserved any copies or have you any record at all of any such early advertisements? A. I think I produced them at the Federal Trade Commission hearing. The contract of the radio and of the Gasoline Retailer. 921

Q. Wasn't that considerably later than 1932? A. That is some which I preserved. The others I have no record of.

Q. But you recall no record of any advertising as early as 1932, that correct, isn't it? A. Unless the boxes themselves, which had the word "reconditioned" on—reconditioned spark plugs—that was the only advertising that we had prior to that date.

922 Q. When did you first start putting your reconditioned plugs in boxes? A. Since the Federal Trade Commission hearing.

Q. What year was that, please? A. I believe that was 1938.

Q. The proceedings began in 1938, I believe, and continued for sometime after that. Does that conform with your recollection? A. That's about right.

Q. And how were you handling your plugs prior to the time that you put them in boxes? A. We always had them in boxes.

Q. I think you must have misunderstood my previous
923 question or I misunderstood your previous answer. A. You mean these boxes, don't you?

Q. No, boxes. A. When we devoted all of our time to reconditioning spark plugs.

Q. That is when you started putting them in boxes? A. Yes.

Q. And that was what year? A. Oh, about 1930.

Q. Do you remember a customer for your produce by the name of J. E. Bernard & Company? A. Yes, sir.

Q. They are exporters, are they not? A. Yes.

Q. And when did you sell spark plugs to them? A. I should say about 1936.

924 Q. And how long did that continue?

Mr. Hood: I object to that as immaterial, your Honor.

The Court: I do not know, on your estoppel and laches and implied license, I don't know whether it is immaterial or not.

Mr. Hood: If your Honor thinks it pertinent, I will withdraw my objection.

The Court: Well, I don't know.

(To witness): You say you sold the Bernard Company about 1936, is that it? 925

The Witness: That's right.

Q. As a matter of fact, Bernard & Company were the first large customer for this product, isn't that true? A. No, sir.

Q. Did you have customers where you were selling these plugs in any volume, say, in lots of a thousand or more, prior to your sales to Bernard & Company? A. Yes, sir.

Q. Domestic customers, customers in the United States, or export? A. Export. 926

Q. It is true, is it not, that your early sales of your reconditioned spark plugs were largely export sales, isn't it? A. No, sir.

But your customers of any size or consequence, so far as the volume of plugs purchased were concerned, were customers who shipped them to foreign countries, isn't that correct? A. No, sir.

Q. Well, what is the fact? A. We sold fleet owners, taxicab owners, that's all taxicabs, and anyone who wished to purchase plugs.

Q. I am now talking about the period prior to 1936. A. That's right. We sold distributors. 927

Q. I understand that, but I say did you sell any of these customers that you have mentioned plugs in any substantial quantity, such as, lots of a thousand or more? A. Yes, sir.

Mr. Hood: I object to counsel requiring the names of defendants' customers from the defendant.

The Court: What is the purpose?

928 Mr. Schaffer: It leads to this, your Honor, we are prepared to show that our correspondence with the defendant began in about the year 1936 and that prior to that time—I am trying to bring out, prior to that time his sales were of such a nature that they would not probably have come to our attention.

The Court: But how can you demonstrate by asking him for a list of names of his customers? Do you mean as to their commercial character?

Mr. Schaffer: Yes, sir.

The Court: We will take that up at 2:00 o'clock.

929 We will recess now until 2:00 o'clock P.M.

(Thereupon, a recess was taken.)

AFTERNOON SESSION

SAMUEL SANDERS, resumed the stand and testified further as follows:

Cross-Examination (Continued) by Mr. Schaffer:

Q. Mr. Sanders, have you ever heard of a man named Emener in Detroit? A. Yes, sir.

930 Q. Do you know whether or not he was engaged in the reconditioning spark plug business in the same general way as you? A. I knew that he was in the reconditioning spark plug business.

Q. Has there been brought to your attention the fact that the plaintiff here, the Champion Spark Plug Company, was in litigation with Emener in Detroit? A. Yes, that was brought to my attention.

Q. Do you remember when that was? A. During the Federal Trade Commission hearing.

Q. Do you recall any correspondence with the Champion Spark Plug Company, between Champion Spark Plug and your company prior to the date of the Federal Trade Commission proceeding? A. I do not recall any such correspondence, no. 931

Mr. Schaffer: May I ask counsel whether he has had an opportunity to examine the records and produce, at our request, correspondence between the plaintiff and the defendants with respect to notice and so forth?

Mr. Hood: Yes, I asked if he had correspondence and so forth, and he said he had not. 932

Q. I show you what purports to be a carbon copy of a letter dated September 23, 1936, written by the Champion Spark Plug Company, and addressed to the Perfect Recondition Spark Plug Company, 1133 Bedford Avenue, Brooklyn, New York, to the attention of Mr. Sam Sanders, and I ask you whether that refreshes your recollection (handing witness letter)? A. Yes. It seems so, according to the carbon copy.

Q. Do you remember receiving such a letter? A. It has been such a long time I would not recall whether I received it or not. 933

Q. Do you remember receiving letters from the Champion Spark Plug Company calling your attention to the fact that they objected to your practices or so-called reconditioning practices with respect to their spark plugs of their original manufacture? A. Well, all I can recall is at the time of the Federal Trade Commission hearing, taking an interest in the findings in the Emener case.

Mr. Schaffer: The letter to which the witness has just referred, dated September 23, 1936, I ask be marked for identification.

934 (The above carbon copy of letter received and marked, "Plaintiff's Exhibit 22 for Identification.")

Q. I show you a letter purporting to be a carbon copy from the Champion Spark Plug Company to the Perfect Recondition Spark Plug Company, attention of Mr. Sam Sanders, dated November 20, 1936 and I ask you if you are able to identify or recall such a letter? A. The letter is addressed to me but I do not recall receiving it. It is such a long time ago. I do not have the original letter of such a copy in the files.

935 Mr. Schaffer: I ask that this letter referred to be marked for identification.

(The above letter dated November 20, 1936 received and marked, "Plaintiff's Exhibit 23 for Identification.")

Q. Now, I show you an original letter, dated December 1, 1936, signed by one Louis J. Lepkowitz, addressed to the Champion Spark Plug Company. First, I ask you do you know a man by the name of Louis J. Lepkowitz? A. What did you say the first name was?

936 Q. Louis? A. An attorney?

Q. An attorney. A. Yes.

Q. Was he your attorney? A. Why, he was more or less of a friend of mine.

Q. Will you look at the letter and see whether that refreshes your recollection as to this correspondence that we have just referred to? A. Yes, I remember speaking to Mr. Lefkowitz regarding our position on reconditioning spark plugs.

Q. And the date of this letter is December 1, 1936, is that correct? A. Yes, sir.

Q. Doesn't this refresh your recollection about these two previous letters— A. Yes, now it does. 937

Q. (Continuing) from the Champion Spark Plug Company? A. I must have received the other letters according to this letter, yes.

Mr. Schaffer: I offer in evidence this letter dated December 1st—rather, I ask it be marked for identification at this time.

(The above letter received and marked, "Plaintiff's Exhibit 24 for Identification.")

Mr. Schaffer: I now offer in evidence the three letters heretofore marked for identification, Plaintiff's Exhibit 22, 23 and 24. 938

Mr. Hood: May I ask the witness a question to clarify something before you proceed?

The Court: Well, have you an objection?

Mr. Hood: Yes.

The Court: Did you hear him say that he must have received those letters?

Mr. Hood: What I want to know is whether his recollection is that he received some letters or whether he identified these?

The Court: His answer was he must have received those letters. 939

Mr. Hood: I would like to have it clarified.

The Court: If you are objecting, I will rule on it.

Mr. Hood: I am objecting.

(Questions and answers referring to objection read to the Court by reporter.)

The Court: I will overrule your objection and give you an exception.

Mr. Hood: Exception.

940 The Court: Do I understand there is no objection to this Exhibit 24 for Identification?

Mr. Hood: No objection, your Honor.

The Court: Very well.

(Plaintiff's Exhibits 22, 23 and 24 heretofore marked for identification received in evidence.)

Mr. Owen: We have here, your Honor, carbon copies of two letters which I wrote and mailed to Louis J. Lefkowitz, Esq., at 207 Broadway, New York, New York, one on December 12, 1936 and the other on December 21, 1937.

941 Mr. Schaffer: We offer the two letters just referred to, in evidence. We offer the earlier date as Exhibit 25 and the second one as Exhibit 26 and we understand that counsel for the defendants makes no objection as to the genuineness of them.

Mr. Hood: I will take Mr. Owen's word for it that he mailed the original of these letters to Mr. Lepkowitz. I have no objection to the letter of December 12th but I think the letter of December 21st is argumentative and immaterial.

I think the other letter establishes whatever it is they want to establish in the way of notice.

942 The Court: What is the basis of your objection?

Mr. Hood: That it is argumentative and immaterial.

The Court: Well, that goes to its weight, not to its admissibility. If you are objecting, I will rule on it. Do you object?

Mr. Hood: No, I won't object to it.

(The two letters received and marked, one dated December 12, 1936, "Plaintiff's Exhibit 25" and the one dated December 21, 1937, "Plaintiff's Exhibit 26.")

By Mr. Schaffer: 943

Q. Mr. Sanders, I show you what purports to be a carbon copy of a letter dated September 28, 1937, written by the Champion Spark Plug Company to the Perfect Recondition Spark Plug Company at 1133 Bedford Avenue, Brooklyn, New York, and I ask you if you are able to identify it or do you recall receiving such a letter? A. Yes, sir.

Mr. Schaffer: I offer this letter in evidence as plaintiff's exhibit.

(The above letter dated September 28, 1937, received and marked, "Plaintiff's Exhibit 27".) 944

Mr. Schaffer: May the Court please, in order to get correct chronology, I would like to have read into the record some dates with respect to other Champion litigation with respect to reconditioned spark plugs, subject to the correction of opposing counsel.

The Court: How is that material to the cross-examination of this witness?

Mr. Schaffer: It is offered on the question of laches, I think, your Honor.

The Court: I think you had better exhaust your cross-examination before you get into that. 945

Q. Mr. Sanders, did you sell a considerable quantity of reconditioned spark plugs to J. E. Bernard & Company, Inc.? A. We did.

Q. And a number of those spark plugs, were they originally made by the Champion Spark Plug Company? A. Yes.

Q. What was the condition of those spark plugs with respect to the decoration on the insulators? A. Well, it

946 showed that they were slightly used. There was a discoloration, slightly, that it was not a new decoration, new print on them.

Q. Don't you recall removing the decorations on the plugs originally manufactured by Champion Spark Plug Company, which you sold to the Bernard Company? A. Only in one case where we removed the name "Champion" alone, which was on order from the purchaser.

Q. You took off merely the trade mark "Champion", is that correct? A. The trade mark Champion, the word "Champion".

Q. On how many shipments was that done? A. I
947 could not tell you how many shipments but it was for one particular customer in England.

Q. Do you know whether or not the Bernard Company discontinued the handling of these so-called reconditioned spark plugs?

Mr. Hood: I object to that as immaterial.

The Court: What does that tend to prove?

Mr. Schaffer: Leading up to the fact that at a subsequent date his brother took over the export business which had been handled by the Bernard Company.

948 The Court: Well, why don't you ask him that?

Q. Your brother, Harry Sanders, took up the business, the export business for your spark plugs in about 1936, is that correct? A. No, sir.

The Court: Did he ever?

The Witness: No, sir, not Harry.

Q. Who was it? A. Well, I just don't understand your question.

Q. Did you ever hear of the Ace Auto Supply? A. That's right, sir. 949

Q. And who operated that? A. I did.

Q. And you sold spark plugs, reconditioned by the Perfect Recondition Company for export, is that correct? A. That's correct.

Q. And you sold spark plugs from which the trade mark "Champion" had been removed, is that correct? A. Only to this account in England which asked us to do so.

Q. Did that apply to all of the British Colonies? A. No, just this one, the name was Garland, Mr. Garland in England.

Q. I show you a copy of a letter dated August 24, 1943, addressed to you, your father and your brother, written by Owen & Owen, Toledo, and I ask you if you can identify it and recall having received it? (Handing witness letter.) A. This was received by my brother. 950

Q. Do you recall the letter? A. I think I do.

Mr. Schaffer: I offer this copy of letter in evidence as a plaintiff's exhibit.

Mr. Hood: May I see it, please?

Mr. Schaffer: Yes. Your Honor, I might state that the letter has attached to it a registration receipt. 951

Mr. Hood: No objection.

(The above copy of letter dated August 24, 1943, received, and marked, "Plaintiff's Exhibit 28.")

Q. You have testified that the boxes, such as Plaintiff's Exhibits 1, 2, 3 and 4, are the same as you have been using since the Federal Trade Commission case. Do you recall what changes were made in the boxes at that time? A. In the previous boxes?

952 Mr. Hood: I object to the question as immaterial.

The Court: Well, it is permissible merely because it was brought out on direct examination. I suppose that opens the door to cross-examination on the subject.

The Witness: Formerly we used a flat box with a printed label stating the word "Reconditioned". Then there was a rubber stamp that we used to put the type mark on.

Q. How about the color of the boxes, was it about the same? A. The flat box had a bluish color to it.

953 Q. Did the previous box have either the name or the address of your company on it? A. No.

Q. Does this box, Plaintiff's Exhibit 1 (indicating) have either the name or the address of your company on it?

Mr. Hood: I object, the box speaks for itself.

The Court: It does.

You may state in the record, Mr. Schaffer, whether you can see the name or the address on the box.

Mr. Schaffer: I wish to state that I do not see either the name of the defendant or the address of the defendant on the box.

954

Q. When did you start using the words on the box such as appear on Plaintiff's Exhibit 1 "guaranteed dependable"? A. When we made up these boxes.

Q. Are you familiar with the Champion carton? A. Somewhat.

Q. Were you at that time? A. Yes.

Q. Do you know the specifications or dimensions which are prepared for a new Champion spark plug? A. No, sir.

Q. What specifications do you follow in connection with your reconditioning of Champion spark plugs? A. Practical specifications—we reset the gap, that's about all the specifications we use—see that the plug is sound and serviceable. 955

Q. To what dimension do you reset the gap? A. Approximately twenty-five thousandths.

Q. Is that true with respect to all reconditioned Champion spark plugs, reconditioned by you? A. Well, we try to set them all at twenty-five thousandths.

Q. Just what equipment do you have in your place of business to carry out this so-called reconditioning process? A. What equipment? 956

Q. Yes, equipment. A. We have a sandblasting machine, we have dust collectors, buffer machines, grinding machine, stamping machine and a machine to put the terminals on. We have feeler gauges to set the spark, we have a spark tester and a compression tester.

Q. Any other equipment? A. We have a welding machine, that is all.

Q. Now, I would like to refer to these various steps that you have testified about in a little more detail. What is the source, your source of discarded Champion spark plugs? A. Where is our source? 957

Q. Yes, what is your source? A. The men go out and pick them up at service stations, garages, fleet owners' shops, wherever they can get them or wherever they can purchase them.

Q. And then these plugs are delivered to you, I take it? A. That's right.

Q. At your place of business? A. That's correct.

Q. And what do you do when someone comes in with a batch of discarded Champion spark plugs to deliver

958 them to you? What do you do first? A. When these men who go out—you said when they come in?

Q. Yes. A. Oh, we recheck them.

Q. What do you mean by that, how do you recheck them? A. We examine the insulator to see that it is not cracked or not too rusty.

The Court: (To witness) Do you mean the insulator is not too rusty?

The Witness: No, the shell. The center electrode is not burned away too much or a very hard carbon deposit between the shell and the center
959 core and we use a method of checking the soundness of the insulator for hidden cracks, by hitting two insulators together to get a certain ring that tells us whether it is a solid ring or a deadened ring. A deadened ring means it is cracked some place.

Q. Well, except for the hitting of the two insulators together, do you give these plugs more than a visual inspection when they are brought in? A. That is the only inspection we give them when they are brought in.

Q. What do you find with respect to the plugs that are
960 submitted to you by these men who are out purchasing them, do you find acceptable all plugs which they offer to you? A. No, sir.

Q. Do you find a large number of the plugs are not acceptable and have to be discarded—I mean, referring of course to Champion plugs? A. Not when the man who brings them in is experienced in selecting the plugs when he purchases them.

In other words, when he purchases them at a certain price per plug, he is very careful in examining those plugs and when I recheck them there is very little losage.

Q. What do you pay for these Champion plugs? A. 961
Three cents a plug, plus freight.

Q. That price has gone up recently, hasn't it? A. No, sir.

Mr. Hood: I object to this as immaterial, your Honor.

The Court: Well, I am not sure whether it is or not. I will overrule the objection.

Q. Your answer was "No, the price has not gone up"? A. No, sir.

962

The Court: (To witness) Are you giving us prices that ruled when this suit was brought in April of 1944?

The Witness: Yes, sir.

Q. Now, what is the first thing you do with these Champion discarded spark plugs after you have acquired possession of them? A. We recheck them.

Q. After—is this a further rechecking, after you have bought them? A. It is not the next step. There is a rechecking at every post in the process of reconditioning the plug. We next give them a bath. 963

Q. And what is that bath, what is the nature of that? A. To wash away the grit and grease.

The Court: (To witness) He means is it water or something else?

Q. What is the solution? A. A cleansing cleaning fluid.

The Court: A cleansing fluid. That means it is something added to water?

964 The Witness: It is not water, it is a cleaning fluid that will take the grease off and the grit.

The Court: Is it an acid solution?

The Witness: No, it is something like naphtha.

Q. How do you get those plugs into the solution, into the bath? A. We put them into a container with—the container has holes in it and we just put them in there and immerse them in this fluid.

Q. And then you take the plugs from the bath and what do you do with them next? A. We put them on ventilating trays that they should dry out.

965 Q. Are they spaced apart on the ventilating trays or how are they placed? A. They are spread over the ventilating trays.

Q. And how do you get them from the perforated container to the tray? A. How?

Q. Yes. A. We take them out with our hands.

Q. With your hands? A. We take the whole container out and then place them on the tray.

Q. Well, do you dump them out of the container or the bucket? A. We don't dump them out, we are careful about placing them on the trays. We just put the con-

966 tainer on the tray, just tip the bucket and slide the bucket along.

Q. How many plugs would you say are in such a bucket? A. Well, different sizes have different quantities. I would say approximately seventy-five plugs.

Q. And what do you do with the plugs after you have dried them? A. They are then placed on a bench and the old gaskets are taken off, the top nuts or terminals are taken off and they are assorted at the same time, according to size and type.

Q. Referring to the Champion plugs, you sort them both according to size and according to type? A. And construction of the plug. 967

Q. What do you mean by that? A. Well, two-piece plugs are put into another container, separated from the one-piece plug.

Q. Do you do something different with the two-piece plug than you do with the one-piece plug? A. Yes, we do.

Q. What difference is there in your treatment? A. Well, in the two-piece plugs we test that the insulator is not cracked and the gland nut usually is tested to see if it is tight.

Q. Do you retighten them—do you have occasion to retighten those two-piece plugs? A. When necessary. 968

Q. And what do you test for? A. Well, on two-piece plugs we find that they break very easily in the course of reconditioning and we are always on the lookout that these insulators are not cracked. Then we tighten these plugs that are not cracked. The cracked ones we discard.

Q. Do you tighten all two-piece Champion plugs that are not cracked? A. Yes.

Q. You are unable to do that with the one-piece plug? A. That's correct.

Q. What is the next step after removing the gaskets, the terminals and the tightening of the two-piece plug? A. They are sent to the sandblaster where they are sandblasted. 969

Q. Is that an automatic process? A. No, it is not an automatic process. The sandblaster has gauges which shows the pressure that we use. It is more or less controlled by the operator.

Q. What pressure do you use? A. Well, you could use——

970 Q. No, pardon me—not what you could use, but what pressure do you use? A. Different plugs, different pressures.

Q. All right, will you give us the two pressures? A We could use, oh, from approximately—we put it at about fifty pounds pressure. It is around fifty pounds pressure that we use.

Q. For all Champion plugs? A. I am taking it within the range for all plugs.

Q. All Champion plugs? A. All Champion plugs.

Q. You say that is the pressure you could use, is that the pressure you do use? A. We do use that and a little
971 higher.

Q. How much higher? A. It varies, maybe ten pounds.

Q. Now, what determines that, Mr. Sanders, as to whether you should go to the higher pressure? A. That is determined by the hardness of the insulator. Sometimes we find that the Champion insulator is so hard, if you use the higher pressure it does not harm it. Sometimes we find the insulator softer, through use, that we cannot use the high pressure on it.

Q. Who determines that, the operator of the sand-blasting machine? A. The operator of the machine, that is right.

972 Q. What abrasive do you use? A. A silicon abrasive.

Q. Do you know whether that is the one recommended by the Champion Spark Plug Company? A. No, we find that is the one best for our use.

Q. It is a different abrasive? A. Yes, sir.

Q. You testified that you are familiar with the Champion Spark Plug cleaner, that is correct, is it not? A. Correct.

Q. Do you know what abrasive they use in that cleaner? A. They put out their own abrasive.

The Court: (To witness) Even so, do you know what it is? 973

The Witness: No, I do not know what it consists of.

Q. In the sandblasting operation of these discarded Champion spark plugs, you remove discoloration from the insulator, is that correct? A. From the insulator——

Q. From the firing end of the insulator? A. We remove the soot or black carbon deposit.

Q. Aren't these insulators white when you finish with the sandblasting operation? A. After sandblasting?

Q. Yes, the firing end? A. I do not understand the question. 974

Q. I will repeat it. Are the firing ends of the insulators of discarded Champion plugs white after you have completed your sandblasting operation? A. Yes.

Q. Do you always sandblast Champion plugs to the exfent that they are white when the sandblasting operation is completed? A. No, sir.

Q. Have you had a chance to look at any of these spark plugs which plaintiff has produced and which have been marked Exhibits 1 to 4? A. Yes, sir.

Q. Have you noticed the color of the firing ends of the insulators of those plugs? I will select a box, Exhibit 4, and I will ask you to examine them. A. The insulators that I find on these plugs are partially white and partially brown. 975

Q. Will you identify the plugs by the numbers stamped on the hex? A. I cannot see whether this is a 3 or a 5. This , D-4, is not a pure white and has a brownish color on the side.

The Court: What is that insulator?

976 The Witness: I don't know how they describe it, it is just the side of the firing end.

The Court: Yes, but are you speaking of the insulator or something else?

The Witness: The insulator.

Q. Are you familiar with the skirt of an insulator, Mr. Sanders? A. Inside the spark plug, between the shell and the insulator—is that the skirt?

Q. No, sir.

The Court: All right, go ahead, next question.

977 Q. What do you do with the plugs after you have completed the sandblasting operation? A. They are sent to a buffer where the shell is buffed to take the dust off and all other material that clings to the spark plug.

Q. And what portion of the shell, the firing end of the shell? A. No, the outside shell.

Q. The side— A. The side.

Q. How about the end of the shell where the side electrode is? A. That is not touched.

Q. Just the side? A. That's right.

Q. Does that complete that operation? A. Yes.

978 Q. And you hold it on what you call a buffing wheel? A. Yes.

Q. Do you rotate the plug? A. You turn the plug to get all sides.

Q. Is that an automatic operation? A. No, sir, a hand operation.

Q. You have someone to do that operation in your place of business? A. A special man for that. Each machine has a special man.

Q. And after the buffing, what is done next? A. The 979
plug is sent to a table where the points are reset and we examine each operation.

Q. Haven't you omitted something, Mr. Sanders? I am referring to the welding operation. A. That is not on all reconditioned Champion plugs. We don't do that operation on all of them.

Q. When do you remove the side wires from the Champion plugs on which you intend to weld a different side wire? A. When do we remove them?

Q. Yes. A. At what stage of the operation?

Q. Yes, sir. A. When we have occasion to remove 980
them, we remove them after the bath and the sorting.

Q. How do you determine whether or not these side wires should be removed? A. When the side electrode is very badly burned and there is no possibility of regaping them.

Q. Well, let us take up that operation. At the very beginning of putting those plugs through your reconditioning process, you take the side electrode off some discarded Champion plugs, is that correct? A. That's correct.

Q. And then these plugs are put through the process as you have described it, or is the side wire welded on at 981
some earlier stage that we missed in discussing it? A. The side wire is put on after buffing the shell. It is then sent to the welder for side electrodes to be welded.

Q. And that is an electric welding process? A. That's right, by machine, not hand.

Q. What instruments do you employ for setting the gaps? A. A feeler's gauge. We have a feeler's gauge.

Q. And that is a thickness gauge? A. That's right, a thickness gauge. We have an Auto-Lite gauge—they are all the same type of gauges, all thickness gauges.

982 Q. And you use the gauge— A. Most handy for our purpose.

Q. And you say it is twenty-five thousandths? A. Twenty-five thousandths.

Q. Then how do you set the gap? A. By bending the side electrode.

Q. Do you use an instrument for that? A. Yes.

Q. What sort of an instrument do you use? A. Just a flat piece of steel.

Q. Do you have to bend the side electrode very far in connection with your resetting the gap of these Champion plugs that we are talking about? A. On some occasions, yes, and on some occasions, no.

983

Q. That depends, does it not, on the length of the center wire? A. Not necessarily. Sometimes we turn the side electrode away—you are talking about the welded spark plugs or the other?

Q. Either one. A. On the ones that we weld the new points on, they have to be bent with a pair of small pliers, to shape.

Q. Is that a hand operation? A. That is a hand operation and there is very little to get the twenty-five thousandths gap.

984 Q. It depends, does it not, on the length of the center wire? A. Well, if the side electrode is burned, it depends on the side electrode.

Q. Where the side electrode is burned, you remove it, don't you? A. Not in all cases, only those that cannot be regaped by bending the side electrode.

Q. Now, what determines the length of the center wire while it is going through your reconditioning operation? A. Well, if the center electrode is badly burned, we discard the plug, we don't use that plug, so we don't adjust it.

Q. You use your judgment about that, is that correct? 985
A. Yes, sir.

Q. How do you remove—where you find only a portion of the center electrode burned, how do you remove that portion, what instrument do you use? A. For removing what?

Q. A portion of the center electrode, what instrument do you use for that purpose? A. On some occasions we find that the center electrode, due to the side electrode being out of parallel, or out of line, it tends to burn the center electrode at an angle and we adjust those, we use a file to flatten it off, just touch the edge off, take the point off the center electrode. 986

Q. You also have some cutting instrument for that purpose? A. No, sir.

Q. Just a file? A. Just a file for the electrode.

Q. In that filing operation, you attempt to remove, as I understand it, the burned portion of the electrode? A. Just to take the point off, make a little flat surface.

Q. To make it flat? A. Yes.

Q. So you would remove enough of the center electrode to make it flat on the end or on the bottom? A. Or if it is too pointed or too burned, we discard those plugs. If we have to remove too much of it, we have to discard the plug. 987

Q. What is too much? A. So we think it will not be of service, where the electrode is too far down.

Q. You would not care to state that in terms of dimension, would you? A. No, I have no way of measuring it.

Q. What do you do, after the gap has been set or reset, what is your next step in the handling of these plugs? A. They are then spark tested.

Q. What is the nature of that test? A. To see that the insulator is sound and that there is no cracks in the insulator.

988 Q. How about temperature, does that raise the temperature of the plug? A. No, sir, not that I know of.

Q. It is a cold test? A. A cold test.

Q. The only thing you do is apply pressure to the firing end of the plug and also electricity? A. That's right.

Q. To see whether it will spark? A. That's right.

Q. Would you say that that test is a good test to determine the heat range of a plug?

Mr. Hood: I object to that, the witness has not been qualified up to the present.

989 The Court: I suppose he can say whether they use it to test the heat range.

Q. Do you use this spark tester to test the heat range of a Champion spark plug that has been put through your reconditioning process? A. This tester is a Champion spark plug tester.

Q. I am not asking you that. A. So it does not determine the heat range.

Q. What comes after the testing? A. The cleaning of the top of the insulator.

990 Q. How is that done? A. By a cleaning fluid such as naphtha.

Q. These plugs are immersed in a bath again? A. No, they are not submerged, they are dipped by hand.

Q. That is the top end of the insulator, the part that has the decoration on it? A. That's right.

Q. What is the next step? A. They are painted by hand, the shells of the spark plugs are then painted by hand and placed in an upright position on a board.

Q. In holes? A. To hold the spark plugs on a board.

Q. And they are painted by means of a brush? A. A brush, hand painted.

Q. Is that some sort of a lacquer? A. That's correct. 991

Q. Would you say that the painting improves the functioning of the spark plug? A. It does not improve the functioning—it may not improve the functioning of the spark plug but it has a tendency to keep the shells from getting rusty.

Q. Now, the plugs are painted and what happens to them next? A. They are sent to a machine where the word—prior to this case—the word "Renewed" was stamped with a hot press onto the side of the hex of the spark plug.

Q. And now? A. The word "Used"—there is a different painting applied to the plug. 992

Q. Is the word "Used" indented into the hex? A. With a hot press.

Q. And is it stamped or indented? A. Stamped.

Q. And what color is that word? A. Red.

Q. And what color is painted on the shell of the plug? A. Silver.

Q. What is the next operation or step after the hex of the plug has been stamped? A. The terminals are then placed on by machine, on the spark plug.

Q. And by terminal, you mean the part at the top of the insulator of the spark plug (indicating to witness)? A. That is correct. 993

Q. What sort of a machine do you employ to put those terminals on, Mr. Sanders? A. Well, it originally was a drill press with a little fixture on the end that catches the terminal and just fastens it on.

Q. Do you start threading them on by hand? A. Yes.

Q. Then you tighten them with a rotating fixture, is that correct? A. That's right.

Q. After the terminals are on the plug, what is the next operation? A. Regarding what?

994 Q. Regarding the Champion spark plug? A. Since this case was instituted or before?

Q. Is there a difference? A. Yes, we place a label now on the insulator of the spark plug with the words "Ex-Champion". Prior to that, they went to the packer.

Q. So at the present time you have the additional step of putting a label on the insulator of the plug, is that correct? A. That's correct, around the insulator.

Q. Then, are the plugs sorted at some stage of the operations you have described? A. Yes, I omitted that.

Q. Where are they sorted? A. At the stamping machine.

995 Q. How is that sorting done? A. By reading the type numbers of each plug as they—the operator picks up the plug and he places them in different containers.

Q. Like bins? A. Boxes.

Q. In boxes? A. Yes.

Q. So, after stamping operation, you then have the operation of sorting the spark plugs— A. We combine it in one operation.

Q. You first stamp the hex is that correct? A. Yes, sir.

Q. Then you sort the spark plugs in boxes and according to the type number that is originally put on the plug by the Champion Company, referring to Champion plugs,

996 of course? A. Yes, sir.

Q. We now have the plug sorted into separate boxes, each box containing plugs in accordance with the type number put on by the manufacturer, is that correct? A. That's correct.

Q. Then what do you do? A. I said we put the terminals on.

Q. After that. A. After the terminals, then there are the labels. I explained the labels.

Q. Then, what is the next step? A. Then they are 997
sent to the packer. The packer puts the gaskets on and wraps them in wax paper.

Q. Just a minute, excuse me—how about the gaskets, what sort of gaskets does the packer put on the plugs? A. At the present time we are using copper gaskets and turned steel gaskets.

Q. Are they new ones or used ones? A. At the present time they are new ones.

Q. You have also employed used ones? A. Due to war conditions. Our supplier could not supply us with the copper gaskets and that is why we are using turned steel.

Q. Are those the gaskets put out by the Champion 998
Spark Plug Company, do you know? A. No, they are put out by the Victor Manufacturing Gasket Company of Chicago, Illinois.

Q. And after the gaskets on the plug—I interrupted you, you were going to tell about the packing?

The Court: He said that they were wrapped in wax paper, didn't he?

Mr. Schaffer: Yes, your Honor.

Q. Then what? A. They are packed in individual 999
boxes and put in containers.

Q. Do you pack anything else with the plug, such as a gap sheet or gap instructions? A. No, sir.

Q. Any kind of instructions at all with respect to the use or installation of these plugs in the engines of automobiles? A. No, sir.

Q. As a matter of fact, do you know of any size chart that you put out? A. No, sir.

Q. Or furnish to your purchaser? A. No, sir, we furnish them with Champion or AC or Auto-Lite charts when they ask for them.

1000 The Court: (To witness) The question is, do you put any out?

The Witness: No.

Q. (Question repeated.) A. Because they have conversion charts.

Q. Who are "they"? A. AC, Champion, and Auto-Lite Spark Plug Companies.

Q. Have their conversion charts? A. Yes.

Q. You furnish those to customers when they are requested? A. If we have them available.

Q. And how do you secure those with respect to the
1001 Champion charts?— A. Well, I had a friend——

Mr. Hood: May I object to this, Judge.

The Court: You may object but I will overrule your objection.

Mr. Hood: Exception.

The Witness: We have friends who know that we are in the spark plug line and when they have charts, they ask us if we would like them and we accept them.

The Court: (To witness) You don't mean friends in any general sense, do you?

1002 The Witness: Business relations.

The Court: What kind of business relations are they, from whom do you procure the Champion charts?

The Witness: They mostly come from the Champion distributor. In one particular case, one of the salesman of a part house, who handles Champion spark plugs, gave us some of these charts, asked us if we would like them and we accepted them, but it is not a general practice to hand out to everybody because we haven't any to speak about.

Q. You have stated that you are familiar with the Champion, Auto-Lite, AC and Doering spark plugs? A. Yes. 1003

Q. Do each one of these manufacturers use the same type numbers to identify their plugs? A. No.

Q. Each uses a different series of type numbers, is that correct? A. That is correct.

Q. So that an Auto-Lite plug to be used in a Chevrolet car, for instance, is identified by a different number than a Champion plug that is to be used in the same car, is that correct? A. That's correct.

Q. Now, I show you Defendants' Exhibit F, the photograph which you have identified as being in front of your store? A. Yes. 1004

Q. I notice there are two spark plugs, two representations of spark plugs appearing on the sign, that is correct, isn't it? A. Yes.

Q. What names appear on the spark plugs on that sign? A. "Renewed".

Q. What trade mark? A. There is no trade mark on there.

Q. Isn't the word "Champion" on one of those? A. Not that I recall—do you mean these two up here (indicating)?

Q. Yes, sir. A. The word "Renewed" is right across. 1005

Q. Isn't it true that you recently had "Champion" on one of the spark plugs on that sign? A. Not that I recall. It has not been changed—the sign has not been changed.

Q. Mr. Sanders, have you ever employed any equipment for testing spark plugs other than the equipment you have mentioned so far during your examination? A. In my shop?

1006 Q. Anywhere? A. We gave out spark plugs to be tested by Mr. Cameron.

Q. Pardon me—have you done it? A. I personally?

Q. Yes. A. Only with the Champion spark plug tester —that is the only equipment.

Q. My attention is directed to the fact that one of the spark plugs forming Plaintiff's Exhibit 1 contains a J-9 type or what was originally a J-9 type of Champion plug, in a box marked H-10. Can you explain that? A. Well, there must have been an error on the part of the operator at the stamping machine by putting it in the wrong bin.

1007 Q. Then how about the two different types of Champion #7 and #7 Commercial in these Exhibits 2, 3 and 4 —am I correct, is it #7 and the Commercial #7— would your explanation be the same with respect to the two types of plugs in those boxes? A. I could say the same due to the labor that we are employing today, that we can get. They have a tendency—they have not got the ability of our former employees to do proper things.

Q. Was Peter Sanders, your father, the original owner and founder of your present business? A. Well, it was more or less of a family affair. There was Dad—we shared the profits together.

1008 The Court: (To witness) Did he start the business?

That's what you meant by "founder", isn't it, Mr. Schaffer?

Mr. Schaffer: Yes, your Honor.

The Witness: Yes, sir.

Q. He was the owner of it? A. As head of the family he was.

Q. And he continued to be the owner for how long? 1009
A. Until the end of 1943, until, I think it was last—the end of 1943.

Q. Your testimony is that he is no longer the owner? A. That is correct.

Q. How did he transfer his ownership to you and your brother? A. Through City Hall records.

Q. Were there papers drawn up to that effect, a bill of sale of some kind? A. No, the accountant withdrew his name from the books and we registered as a trade name under our own name, that is, my brother and myself.

Q. Previously, the trade name had been registered for 1010
the three of you, is that correct, or was this the first registration? A. As I recall the trade name was registered in Harry Sanders and Samuel Sanders at one time and then it was changed to Peter Sanders and Harry Sanders. Then it was transferred back to Harry Sanders and Samuel Sanders.

The Court: (To witness) When you say it was transferred back, are you speaking of the business or the name?

The Witness: Well, it applies to both the name and the business. 1011

Q. Was there any consideration paid by you and your brother to your father— A. Yes, sir.

Q. (Continuing) for this transfer? A. Yes, sir.

Q. You bought the business from him? A. Yes, sir.

Q. Have you paid him? A. Not in full.

Q. You are paying? A. Yes, sir.

Q. Is there any mortgage or any publicly recorded document with respect to that transaction? A. No, sir,

1012 we did not deem it necessary because it was a family affair.

Q. In whose name is the bank account at the present time? A. My name. You mean who has authority to sign checks?

Q. Yes.

The Court: I think that is another thing. I think you want to know the names of the depositors.

Mr. Schaffer: Yes, your Honor, thank you.

1013 Q. Who are the names of the depositors in your bank account? A. Harry Sanders and myself.

Q. Not your father? A. No, sir.

Q. Does your father have notes or some evidence that you and your brother purchased the business from him and owe him money for it? A. Only what the accountant puts on the books and payments that I make to him.

Q. As a matter of fact, he still has an interest in the business, doesn't he, until you pay him?

Mr. Hood: I object to that as calling for a legal conclusion of the witness.

1014 The Court: That is true, but it may also call for a factual statement. I suppose there should be some precise information on the subject. I thought there was no defective parties pleaded in the case, in the way of a misjoinder.

The answer denies that Peter Sanders is conducting the business as an individual or a partner in the Perfect Recondition Spark Plug Company. I suppose that counsel may indulge in some inquiry on that subject. This answer was filed on May 2,

1944. When was this preliminary injunction mat- 1015
ter on?

Mr. Schaffer: It was in the wintertime, I believe.

Mr. Hood: I think the suit was started at about the end of April, 1944 and we had our argument around the early summer of 1944 on the preliminary injunction.

The Court: I was w ndering whether the affidavit in connection with the preliminary injunction had anything on this subject, that is what I wanted to know about it.

Mr. Ward: April 12, 1944, your Honor.

Mr. Schaffer: There were two affidavits filed by 1016
Samuel Sanders.

The Court: Do these affidavits refer to who was conducting the business?

Mr. Schaffer: My recollection, your Honor, is—

The Court: I know there was a very wide scope of affidavits but I am only interested to the extent to which the plaintiff has perhaps taken depositions to prove this matter, if it is material, that is all.

Mr. Schaffer: We were praying for an injunction and an accounting, your Honor.

Mr. Hood: Here is a paragraph in the affidavit 1017
of Samuel Sanders, verified on May 11th, which says:

"I am at present in partnership with my brother Harry Sanders, a defendant herein. The other defendant, Peter Sanders, is my father but he is no longer connected with the business. I have been in this business for many years, being formerly associated with my father, Peter Sanders, and now with my brother, Harry Sanders."

The Court: What was that last question?

1018 (Last question repeated by reporter.)

The Court: The question is based on the theory that your father has taken some security from you or may look to the assets of the business as security for the payment of the notes—did you give him a note when you bought him out?

The Witness: No, sir, a cash payment.

The Court: But there is an unpaid balance on the purchase price?

The Witness: Yes, sir.

The Court: Has he any security on that?

The Witness: Just my word.

1019 The Court: Then, Mr. Schaffer, I think you are making this witness your witness on the subject. If you want him to construe a legal relationship, I think you are naturally bound by what he says.

Mr. Schaffer: I will withdraw the question.

Q. Are there any written records whatever showing the transaction between you and your father by which the business was transferred to you and your brother, any written records? A. Just what the accountant made up. We had an inventory, set the prices and she has a record of it.

1020 Q. But nothing was signed by you and nothing was signed by him, is that correct? A. No.

Q. That is correct? A. That is correct.

Mr. Schaffer: That is all.

Re-direct Examination by Mr. Hood:

Q. Did you have any letters or complaints from the plaintiff prior to 1936, that you recall? A. Not that I recall.

Q. And subsequent to the Federal Trade Commission decision, which I believe was about 1940, did you have any letters or complaint from the plaintiff with the exception of a letter from Mr. Owen in 1943 calling your attention to the Reich decision in Missouri? A. Do you mean the Federal Trade Commission? 1021

Q. And the time this suit was started, do you remember any communications or complaints from the plaintiff with the exception of that letter from Mr. Owen? A. I do not recall having received any.

Q. When you obtained this reconditioning unit of the Champion Spark Plug Company with which you started in business in 1930, from the Champion distributor, did anyone connected with the distributor say anything or do anything to indicate to you in any way that your reconditioning program was objectionable to the plaintiff? 1022

Mr. Schaffer: I object to that, your Honor.

The Court: Sustained.

Q. Now, are the Champion spark plug boxes any color besides blue? A. Red.

Q. Do you have any one of those boxes here? A. I think I have a sample individual box but in the beginning—— 1023

The Court: Is that important?

Mr. Hood: Yes, I think they are trying to make out some point in the similarity of color.

The Court: Is that true?

Mr. Owen: We are making a point out of the similarity, shape, color and wording and they have copied the language of our container, "Guaranteed dependable" which we have carried for many years.

1024 The Court: Talking about the color, you do not claim any exclusive right to color, do you?

Mr. Owen: No, only as part of the general picture, the fact that they have adopted a similar color and similar language——

The Court: The general dress, is that it?

Mr. Owen: Yes, sir.

Mr. Schaffer: Mr. Sibley testified that we use a red carton.

The Court: Yes, I heard him say that, that's the reason I ask, is it important?

Mr. Hood: Due to the fact that they have such
1025 a general idea in mind, I would like to put some red ones in evidence.

The Court: Go ahead.

(Witness producing box.)

Q. I show you this object and I ask you what it is? A. That is a Champion spark plug box.

Mr. Hood: I offer it in evidence.

The Court: Do you want the contents in?

Mr. Hood: Yes, sir.

(A Champion spark plug, box and wrapper re-
1026 ceived and marked as one exhibit, "Defendants' Exhibit K.")

* * * * *

Q. Is your cleaning solution of such a type that is generally used in garages for removing grease and so forth?

The Court: He said it was a naphtha solution.

The Witness: Yes.

The Court: And naphtha is used to remove 1027
grease.

The Witness: Yes.

The Court: Everybody knows that. Next question.

Mr. Hood: O.K., Judge.

Q. Did you at one time use the Champion abrasive when you used the Champion spark plug cleaner? A. Yes.

Q. And why did you change to the present type of cleaning abrasive? A. We find the abrasive we are using today does a better job, better cleaning, and there is not as much dust as the Champion abrasive. 1028

Q. What do you find with reference to your present sandblasting machine as compared with the sandblasting machine that you formerly used? A. We find that we can see the actual sandblasting of the spark plug whereas under the Champion you just put it in a little porthole and then press a button and you do not see any of the operation at all.

Q. In other words, you have a window in your machine that permits you to observe the operation? A. Yes.

Q. How does that affect your control of sandblasting the plug? A. It controls the parts to be cleaned without injuring them. 1029

Q. I understand you only put on new electrodes where the side electrode is very badly burned? A. Yes, sir.

Q. Are they the plugs that have had normal use or the most usage, of the plugs that you take in?

The Court: May I ask how he could tell if they had had normal usage by looking at them?

Q. Well, let us take these plugs——

1030 The Court: Don't let us take them at all. He has told us when he puts side wires on. He does it because he thinks it is necessary.

Mr. Hood: That's true, Judge.

Q. Are the plugs on which you put the new side electrodes plugs which show the same evidence of previous use as the other plugs or more or less?

Mr. Schaffer: I object to that question.

The Court: I do not know the object of it, it is just consuming time. Why don't you ask him what
1031 percentage of plugs that he sells contain new side wires—that is all you have to ask him.

Q. Mr. Sanders, you have been in the automotive trade and in contact with automotive people for how long? A. Ten years or more.

Q. Can you tell his Honor what the meaning of the term "reconditioned spark plug" as used in the automotive trade is?

Mr. Schaffer: I object to that question.

The Court: I will tell you why I think I will over-
1032 rule your objection. I note that the term was used by Mr. Owen in the letter written in 1943, from which I am prepared to be persuaded that it has some accepted meaning. Now, whether this witness has discussed the meaning or not, I don't know but I think he can state how it is used.

Q. (Question repeated.) A. The word "reconditioned" means——

The Court: May I interrupt—Were you the first one to employ that or did you copy its use by someone else? 1033

The Witness: We were the first ones.

The Court: So that you are going to tell us now why you used it?

The Witness: Yes.

The Court: I will exclude the question.

Q. The question I am asking you is whether or not at the present time the term "reconditioned spark plug" has a definite meaning in the automotive trade and if so, what that meaning is? A. The meaning is to clean the insulator and restore the gap and put the spark plug into a serviceable condition. 1034

Q. And is there any use in the automotive trade at the present time of such a term as "rebuilt spark plug"? A. There is.

Q. Will you tell his Honor what the generally accepted meaning of the term "rebuilt spark plug" is in the automotive trade? A. The word "rebuilt" means——

The Court: Rebuilt. I will tell you for your own information that I am not going to rely on this witness' testimony as to what reconditioning means. You have it in the record but I will base no finding on what this witness says it means. 1035

Mr. Hood: I will have other witnesses on the same subject, your Honor.

The Court: If you are going to do that, why not drop it with him? He says he was the first one to use it.

Mr. Hood: All right, if your Honor prefers it, I will use the other witness.

1036 Q. I show you these Plaintiff's Exhibits 1 to 4—you may examine any representative plug that you care to—will you tell his Honor what those plugs are?

The Court: It is not necessary for him to tell me what they are. I see. Sometimes I can hear and sometimes I can understood, too, but he does not need to tell me what they are.

Q. I show you this object and I ask you what it is? A. It is a Champion core for a spark plug.

Q. Is that a recognized article of commerce, if you
1037 know? A. Well, it is offered in the trade.

Q. What is its use, if you know? A. It is used to replace broken insulators in spark plugs.

Q. Do you ever use anything like that in your output? A. No, sir.

Q. Have you ever used anything like that in your output? A. No, sir.

Q. Do you sell your output subject to any guarantee of your own? A. We have our own guarantee which is printed on the box.

Q. And what is that guarantee to which you are re-
1038 ferring——

The Court: Is it in English? If it is in English, I can read fairly easy words.

Q. Have you had any complaints under that guarantee from people who have used the plugs?

The Court: What has that to do with the issues in the case?

Mr. Hood: I want to show the general traffic in these reconditioned plugs so far as he is concerned.

The Court: That is not the question. The traffic may be very general, it may be bigger on the part of the defendant than it is on the part of the plaintiff. That still has nothing to do with the defendant's right to use the words "Champion Spark Plug." Suppose you try to understand that. You may not agree with me but please understand that that is what I see in this case. 1039

Mr. Hood: They have in the record evidences of percentage of return under their guarantee. Can I put in comparable returns under our guarantee?

The Court: The only reason that is in the record is because somebody pointed out that they do have returns and they do treat plugs that are sent to the factory and the question was, what do they do with the plugs. 1040

By Mr. Hood:

Q. Have you had any litigation with the plaintiff prior to the institution of this suit? A. Federal Trade Commission.

Q. I am talking about litigation with the plaintiff, aside from the Federal Trade Commission which was with the Government? A. No, we never had. 1041

Mr. Hood: That is all.

Re-cross Examination by Mr. Schaffer:

Q. Mr. Sanders, when you are using your sandblasting machine to clean the firing end of a spark plug and the sandblaster is in operation, can you see how much of the insulator is being removed while this sandblasting is going on? A. We can see the insulator and the sand hit-

1042 ting the insulator. Naturally, we can see it if it is wearing it away or not.

The Court: Now, the relative merits of the plaintiff's and the defendants' sandblasting machines are not in issue in this case, are they?

Mr. Schaffer: No, sir.

The Court: Thank you.

Mr. Schaffer: That is all.

The Court: (To witness): Have you any objection to the use of the prefix "ex" in connection with the spark plugs that you sell? Has it ever injuri-
1043 ously affected your business?

The Witness: We don't sell many plugs since this suit is on.

The Court: What I am asking you is, do you think the use of the prefix "ex" has injuriously affected your business?

The Witness: I cannot answer that, Judge, I really don't know if it will or won't.

The Court: If it had, you would know that?

The Witness: We did not get any repeat orders and we did not ship out many plugs, so we could not tell what the public or the buyers think of the
1044 idea.

The Court: Are you still able to say whether it has injuriously affected your business or not?

The Witness: I don't think so.

The Court: You don't think you are able to say or you don't think it has?

The Witness: I do not think it seriously affected our sales as of today.

The Court: Now, you told us that you removed the word "Champion" from the insulator in connec-

tion with sales that you made to an English cus- 1045
tomer. Do you remember that?

The Witness: Yes, sir.

The Court: Did you use substantially the same process in removing it that was demonstrated on the stand by plaintiff's witness?

The Witness: No, sir.

The Court: What did you use?

The Witness: We touched the word "Champion" with a very fine grindstone.

The Court: And for how long a period of time did you do that?

The Witness: A very short time. 1046

The Court: It was on more than one order, wasn't it?

The Witness: Yes.

The Court: Are you still doing it?

The Witness: No, sir.

The Court: All right, that is all.

Re-direct Examination by Mr. Hood:

Q. In your experience with spark plugs, the plugs with trade marks removed, Mr. Sanders, what have you to tell his Honor as to the matter of the possibility of confusion 1047
among spark plugs with trade marks and type marks removed?

Mr. Schaffer: I object to that question, your Honor.

The Court: Objection overruled

The Witness: Well, on spark plugs such as Champion puts out, I can see quite a bit of confusion between quite a number of their plugs. The old Commercial, #1 Commercial, the #00 Commercial,

1048 the #72, they all look alike at visual inspection. The J-9, their H-10 is similar to the J-9. There is quite a bit of confusion.

The Court: You say they will look alike, can they be used interchangeably?

The Witness: Why, they would not give us satisfactory service in the automobile.

The Court: That must be due to some structural difference.

The Witness: On the inside of the spark plug. My opinion is that you would have to be thoroughly educated in the spark plug line to look inside the

1049 spark plug.

The Court: I am asking you if there are structural differences in these various types that you have referred to?

The Witness: From the outside, no.

The Court: Well, I don't know what that means. Either there is a difference or there isn't a difference. Now, I am asking you if there is.

The Witness: There is different heat ranges.

The Court: Is that all?

The Witness: That's all you could tell from the outside of the spark plug.

1050 The Court: Is that the only difference in the structure of these various types?

The Witness: I will say, yes.

The Court: Well, then, if you should simply adopt your own system of heat ranges, you could mark your product satisfactorily, couldn't you? Then you would simply mark them with reference to the heat range—that would cover your requirements, wouldn't it?

The Witness: It would.

By Mr. Hood:

1051

Q. Mr. Sanders, when you speak of the outside of the plug, do you mean the general appearance of the plug with the exception of the firing end? A. That's right.

Q. Will you tell us whether or not the differences between these plugs are in the firing end? A. That is the only difference, in the firing end.

Q. What have you to say with reference to the amount of education, as you call it, necessary to distinguish between those plugs by looking at the firing end?

1052

Mr. Schaffer: I object to the question as beyond the scope of re-direct examination.

The Court: Well, probably I invited it, so to be consistent, I will overrule the objection.

The Witness: You would have to be either an engineer or well educated in the spark plug line.

Q. From your experience in the trade, can you tell his Honor whether or not there are other makes of plugs which resemble any Champion plug—in general appearance—except for the trade and type marks?

1053

The Court: I do not see what that has to do with the simple question that I think underlies this case.

Mr. Hood: I would like to show a possibility of confusion exists, not only with plugs similar in appearance in the general heat range, but also plugs of the Champion line and plugs of an inferior manufacture.

The Court: Your client is on record as saying that as far as his marking of the product is concerned, all he has to do is mark these plugs in reference to the heat range. He said that.

1054 It is true that you are trying to lead him away from that but he said it. I do not think it enters this case if there are other spark plugs that generally resemble Champions in appearance. The single issue in this case, and I say this for the fifth time today, is, has the defendant the right to sell these as Champion spark plugs?

Mr. Hood: I thought your Honor was interested in the question of feasibility and possibility of confusion and inconvenience with the public and for that reason I was attempting to clarify it.

1055 The Court: I asked him if the prefix "ex" had harmed his efforts and somewhat reluctantly he said he did not think it had.

Mr. Hood: That is all.

(Witness excused.)

NATHAN DAVIS, called as a witness on behalf of the defendants, was first duly sworn and testified as follows:

Direct Examination by Mr. Hood:

Q. What is your business? A. Automobile parts and
1056 accessories.

Q. Have you ever handled defendants' output of reconditioned spark plugs? A. Yes, sir.

Q. And what sort of customers did you sell these spark plugs to? A. To fleet owners, truck and taxicab fleet owners.

Q. Here in New York? A. Yes, sir.

Q. Will you state some people who used the plug? A. Yes.——

Mr. Schaffer: I object, your Honor.

The Court: Is it necessary in your case? 1057

Mr. Hood: No, I just want to show the type of customers.

The Court: But he says truck and taxicab fleet owners.

Mr. Hood: I will withdraw the question.

Q. And how did you represent the plug?

Mr. Schaffer: I object to that.

The Court: Do you mean, did he say they are new or something else——

(To witness): You did not attempt to sell them 1058 as new, did you?

The Witness: No, sir.

Q. How were they sold to you by the defendants? A. As reconditioned spark plugs.

Q. Did you ever know the defendants to sell or advertise any of their plugs as anything but reconditioned plugs? A. No, sir.

Mr. Hood: That is all.

Mr. Schaffer: No cross-examination.

(Witness excused.) 1059

YUNG LEE, called as a witness on behalf of the defendants, was first duly sworn and testified as follows:

Direct Examination by Mr. Hood:

The Court: (To witness) Do you believe in the sanctity of an oath?

The Witness: Yes.

1060 The Court: Do you know what that means?

The Witness: An oath, yes.

The Court: Do you know what it means to take an oath and tell the truth?

The Witness: Yes.

The Court: How old are you?

The Witness: Forty.

The Court: How long have you been in this country?

The Witness: Many years.

The Court: You were born in China?

The Witness: Korea.

1061 The Court: Has this gentleman had any technical training?

Mr. Hood: No, he is a collector of spark plugs.

The Court: Very well.

By Mr. Hood:

Q. Do you know the defendants, the Sanders family? A. Yes, sir, I did not know them well at the beginning.

Q. Have you had some business dealings with the defendants? A. Yes, sir.

Q. What kind of business have you transacted with 1062 the defendant? A. I buy always spark plugs and I sell them to him.

Q. How long have you been doing that kind of business with the defendant? A. For the last seven years.

Q. Will you tell his Honor where you go to get these plugs? A. All sorts of places, filling stations, garages, service stations.

Q. Will you tell his Honor what conditions you find when you go around to these sources of supply to get these plugs?

Mr. Schaffer: I object to that. 1063

The Court: I don't know what he means by "conditions",—light, air, heat, sanitary conditions——

(To witness): You find these in barrels of scrap, don't you?

The Court: And you pick them out?

The Witness: I buy sometimes a job lot. People save them up and then I come and I buy the whole lot.

Q. Mr. Lee, is there any customary or usual variation in the condition of the spark plugs, depending on the kind of trade that your source of supply has—do you 1064 understand the question?

Mr. Schaffer: I object to it.

The Court: Well, let us see if we can get a stipulation as to what his testimony on the subject is.

Mr. Hood: The witness tells me that when he goes around to these sources of supply he goes to a poor neighborhood or a one-man shop and there, if that man is conscientious with his customer, there only a few plugs are proper for reconditioning. If he goes to a place in an exclusive 1065 or fancy neighborhood, where the customers have a lot of money, there are a very higher percentage of the plugs that are good for reconditioning.

The Court: Assume that is so, what differnece does it make?

Mr. Hood: I would like to show that these plugs that this man gets are selected plugs and suitable for reconditioning. The plaintiffs charge that they are junk.

1066 The Court: Would you be willing to stipulate that this witness would testify that he endeavors to make a selection from the plugs and turn over to the defendants only such plugs capable of being repaired by them and sold by them in the course of their business?

Mr. Owen: I understand the witness to say that he buys in job lots.

The Court: But he takes them—well, perhaps we could not save any time, anyhow.

Mr. Hood: He makes a selection and he goes to a certain source of supply,——

1067 The Court: He makes a careful selection.

Mr. Hood: Yes.

The Court: And he turns over to the defendant only those which he thinks can be used?

Mr. Hood: That's right, Judge.

The Court: Will you stipulate he would so testify, Mr. Owen?

Mr. Schaffer: Yes, your Honor, we will so stipulate.

Mr. Hood: That is all.

(Witness excused.)

1068 ABRAHAM TURNER, called as a witness on behalf of the defendants, was first duly sworn and testified as follows:

Direct Examination by Mr. Hood:

Q. What is your line of business? A. Automobile glass distributors and supplies.

Q. How long have you been in that business? A. Since 1934.

Q. And have you had business relations with the defendants? A. Yes. 1069

Q. What sort of business relations? A. Originally, we started by having Mr. Sanders repair wind shield wipers for us and then later on we purchased some spark plugs from him, for quite a while, until the war started, when we more or less dropped the line.

Q. How were those plugs sold to you, under what representation? A. Reconditioned spark plugs.

Q. How long have you been in contact with people in the automotive business? A. Since we started.

The Court: How many years is that? 1070

The Witness: About ten years, July, 1934 we started.

Q. Do you know the meaning of the term "reconditioned spark plug" in the automotive trade? A. It implies the same thing as other automotive parts that we put into condition again, for operating purposes.

Q. How do you sell these plugs yourself, as to what representation? A. As reconditioned spark plugs.

Q. And to whom do you tell them? A. To our customers throughout the Eastern sea coast. 1071

The Court: (To witness) He means what line of business?

The Witness: Automotive.

The Court: Users?

The Witness: No.

The Court: Distributors?

The Witness: Distributors.

Mr. Hood: That is all.

Mr. Schaffer: No cross-examination.

(Witness excused.)

1072 The Court: We will take a recess now, gentlemen, until 10:30 o'clock, tomorrow morning.

(Whereupon, a recess was taken.)

TRIAL RESUMED.

Brooklyn, New York,
April 4, 1945.

Before:—HON. MORTIMER W. BYERS,
U. S. D. J.

1073 (Appearances as heretofore noted.)

SAMUEL SANDERS, recalled as a witness, testified further as follows:

Examination by Mr. Hood:

Q. Will you estimate, as well as you can, about what percentage of your output has an inside electrode welded on? A. It is a very small percentage, fifteen or twenty per cent., I imagine.

Q. I show this box of plugs to you and I ask you
1074 what they are?

The Court: Didn't we have that yesterday afternoon?

Mr. Hood: What, Judge?

The Court: Are these Plaintiff's Exhibits 1 to 4?

Mr. Hood: No, Judge.

The Court: Oh, I am sorry.

The Witness: They are reconditioned Champion spark plugs which we reconditioned.

Q. Are those samples of your output in which you have not put new side electrodes? A. Yes, sir, I can tell by the size. 1075

Mr. Hood: I offer those in evidence.

Mr. Schaffer: May I examine one, please?

Mr. Hood: Surely.

(Three packages, ten plugs in each package received and marked, "Defendant's Exhibit L".)

Q. Will you tell his Honor how these plugs, without side electrodes, compare with your output with the new side electrodes so far as previous usage of the plug is concerned when you received them? 1076

Mr. Schaffer: I object to that.

The Court: I don't think he knows anything about their previous usage, I will sustain the objection.

By Mr. Hood:

Q. Will you tell us how you determine, when you get a plug in your shop, whether or not to put on a new side electrode? 1077

Mr. Schaffer: I object to that, your Honor.

The Court: Overruled.

The Witness: When the plugs come into our shop, we examine them and the ones that have the hardest usage or with electrodes that cannot be regaped, we put those on the side and those are the ones that we put the new electrodes on.

Q. I show you this object and I ask you what it is? A. That is a used Champion spark plug.

1078 Q. Is that from your shop? A. Yes, sir.

Q. At what stage of your operations does that represent? A. It represents the stage after the sandblasting cleaning and ready for painting.

Mr. Hood: I offer that in evidence.

Mr. Schaffer: Your Honor, may I ask the witness some questions about this before it is put in evidence?

The Court: Yes.

By Mr. Schaffer:

1079 Q. Do you know where this plug was used? A. Where it was used?

Q. Yes, sir. A. I don't know where it was used, it was in an engine.

Q. Did you use it in your engine? A. No, sir, I only have a car that uses 14 mm. size plug.

Q. Do you know where this plug came from? A. No, sir, that was picked out at random from all of the plugs in the shop. We selected one that was on the top.

Q. And is it your testimony that this is a discarded plug? A. Yes, that was a discarded plug brought into
1080 my shop.

The Court: It will be received.

(The above used spark plug received and marked, "Defendants' Exhibit M".)

By Mr. Hood:

Q. Will you examine Defendants' Exhibit M and state whether that plug has a new side electrode? A. It has not a new side electrode.

Q. I believe yesterday you examined various plugs with new side electrodes, Plaintiff's Exhibits 1, 2, 3 and 4? A. Yes. 1081

Q. Will you state whether or not those plugs are representative of your average output?

Mr. Schaffer: I object to that.

The Court: I think he already said that new side electrode plugs amount to fifteen to twenty per cent. of his output.

Mr. Hood: If your Honor thinks the point is clear, I won't labor it.

1082

Q. I show you these objects and I ask you what they are? A. They are used Champion spark plugs, they have been used in a motor.

Q. Where did you get those plugs? A. These plugs were brought in by one of the men who sells the used plugs.

Q. Does that represent a typical sample of a plug that you recondition, prior to the reconditioning process?

Mr. Schaffer: I object to that.

The Court: Objection sustained.

1083

Q. Are these plugs your property? A. Yes, they are.

Q. Have you done anything to those plugs since you received them in the shop? A. Just checked them over when we purchased them.

Mr. Hood: I offer those plugs in evidence.

The Court: How many are there?

Mr. Hood: Four.

The Court: They will be received.

1084 (The above four used plugs received and marked "Defendants' Exhibit N".)

Q. I show you those objects and I ask you what they are? A. They are Champion plugs which we reconditioned.

Q. Will you state what type numbers are on those plugs? A. #1 Commercial, #00 Commercial and #0 Commercial.

Q. Do those plugs have different heat ranges, according to plaintiff's size chart? A. Yes.

Q. And is it possible for you, with the experience that you have had, to distinguish the type of those three
1085 plugs without reference to the type number and the trade mark?

Mr. Schaffer: I object to that question as immaterial. It seems to us that he is cross-examining his witness on the cross-examination yesterday.

The Court: He is asking the witness if he can distinguish something without looking at the type marks. That's the question, isn't it?

Mr. Hood: Yes, Judge.

The Court: Objection overruled.

The Witness: They all look similar. It would
1086 be very difficult to distinguish spark plugs unless I looked inside and looked at the heat range which would show me that it is a different plug but from the outside you could not tell, it is very hard.

Q. From your examination of the firing end, Mr. Sanders, can you tell if they have different heat ranges of some kind? A. From an examination of the firing ends I would be able to tell.

Q. But could you tell what the heat range is from looking at the firing end? A. No, I could not tell. 1087

Mr. Hood: I offer those in evidence.

The Court: How many are there?

Mr. Hood: Three, your Honor.

The Court: They will be received.

(Three plugs received and marked, "Defendants' Exhibit O".)

Q. What is that object that you now have in your hand? A. A container of hydrofluoric acid.

Q. Did you obtain that from an ordinary commercial source? A. Yes, I bought this from Eimer & Amend. 1088

Q. Did you pour any of that on this piece of glass that I now show you? A. I did.

Q. I show you this object and I ask you what this is? A. This is a spark plug that was lying near the hydrofluoric acid.

Q. Did you pour any acid on it? A. No.

Q. Was it exposed to the fumes of the acid? A. Yes, sir.

Mr. Hood: I offer the container of acid, the piece of glass and the spark plug in evidence. 1089

Mr. Schaffer: I object to it.

The Court: What is the purpose of the offer?

Mr. Hood: I want to show the effect on defendants' materials with the type of acid that plaintiff's witness testified we should use.

The Court: You have not laid a foundation yet. In the first place, I don't know the strength of the acid, and in the second place, I do not know how near the acid was placed to the acid. I do not

1090 know the purpose for which it was placed there and further I do not think it tends to negative the demonstration of the removal of the decoration by the method employed by plaintiff's witness.

Mr. Hood: It can be done, judge, there is no question about that but we are interested, what we are interested in is the damage that it will do to our materials and the danger to the health to the men in the shop.

The Court: The trouble is plaintiff's testimony is quite factual on that and of course you have the right to call someone to contradict that tes-
1091 timony but this mere exhibit does not impress me at all.

Mr. Hood: The thought I have in mind is we cannot disprove what goes on in another factory and this is the best that I can do.

The Court: Well, you asked me what I had in mind and I do tell you that I do not regard this as any proof that you cannot remove the decoration.

Mr. Hood: You can remove it. On the preliminary injunction hearing one of the things your Honor was interested in was the deleterious effect
1092 on materials by the use of this acid.

The Court: I think that the plaintiff offered pretty convincing proof on that subject and I am not trying to shut you off from offering proof to the contrary.

Mr. Hood: You mean, when the witness put his finger in the acid?

The Court: Now, don't cross-examine me. I am merely telling you my impression of the evidence thus far adduced.

Q. What is the strength of the acid that you pur- 1093
chased? A. I asked for hydrofluoric acid and he asked me for what purpose and I told him for industrial purposes and he sold me this container, which says 52%.

Q. Will you take the top off of that cardboard container, please? A. Yes, sir (witness removing top).

Q. And inside the cardboard container is a bottle of some material. Do you know what that material is? A. It is a paraffine container which contains the acid.

Q. Did you make any hole in the container? A. Yes, sir.

Q. How large a hole? A. Just with a little knife, I
was just fishing around with it, to get the opening. 1094

Q. And how far away was this spark plug that we are talking about from this opening in the bottle? A. Can I close this again?

Q. Yes, close it up. A. While I was experimenting with this acid on other spark plugs, to take the decoration off, to see what effect it would give them, these plugs were lying on a shelf above the bench that I was working on. I did not notice this until the following day or two later and then I noticed that these plugs were turning rusty and a part of the drill press was turning rusty.

1095

Q. And how far away was the drill press from the paraffin container with the little knife hole in it? A. When I finished with the experiment, I usually cover the container and the drill press must be approximately four feet.

Q. How far away was the plug on the shelf above your head? A. About three feet.

Q. What was the duration of the exposure of the plug? A. Overnight.

1096 Mr. Hood: I now offer the three objects in evidence.

Mr. Schaffer: We make the same objection, your Honor.

The Court: Objection sustained.

Mr. Hood: Exception.

Q. From what source or company did you obtain the wire that you used to put on the new side electrodes on Plaintiff's Exhibits 1, 2, 3 and 4?

Mr. Schaffer: I object on the ground of mate-
1097 riality.

Mr. Hood: I have the man here from the company.

The Court: What do you expect to prove?

Mr. Hood: They have raised the issue about the quality of the wire.

The Court: No, they have not. They have raised the issue about one element being missing.

Mr. Hood: I have a man here from the company to testify.

The Court: As to what?

Mr. Hood: As to the wire and what it is used
1098 for.

The Court: That is not going to help, it will only take up time.

Mr. Hood: I think it should be in the record.

The Court: I don't agree with you.

Mr. Schaffer: If counsel is prepared to state that he is going to contradict plaintiff's analysis of the wire, I will withdraw my objection, if he is going to show that our testimony is incorrect on that.

Mr. Hood: I do not know what the witness is going to say. 1099

The Court: Well, you should not put a witness on the stand unless you do know what he is going to say. That is part of your job.

Mr. Hood: But I never know just what they are going to say, your Honor.

The Court: Well, you withdraw your objection, Mr. Schaffer, and let's find out about this wire.

(To witness): Where did you buy the wire?

The Witness: The Driver Harris Company, Harrison, New Jersey.

The Court: What number wire did you buy? 1100

The Witness: R-63.

The Court: Do you use any other type of wire?

The Witness: No, sir.

Mr. Hood: That is all.

Cross-Examination by Mr. Schaffer:

Q. I have handed you Defendants' Exhibit M, a spark plug. Are you prepared to state that that spark plug was used in the engine of an automobile? A. Yes, this spark plug was brought to me and showed signs of use. 1101

The Court: (To witness) Have you any knowledge of the prior history of that exhibit before it came to your hands?

The Witness: All I know, it was a used spark plug.

The Court: Have you any knowledge of the prior history of the plug before it came into your hands?

The Witness: No.

1102 *By Mr. Schaffer:*

Q. I now show you Defendants' Exhibit O, three spark plugs which you state have been reconditioned by your company and I ask you whether you have any knowledge as to the prior use of those plugs before they came into your hands?

Mr. Hood: May I ask counsel to clarify that question. It covers a whole world of possibilities.

The Court: I thought it was directed to the
1103 prior history of those three plugs. I think that is quite confined.

The Witness: I do not know who was the original owner of these plugs.

Q. Do you have any knowledge of the prior history of the spark plug which you are holding in your hand? A. I still don't understand the question. All I know is when they bring in a plug to me, when I purchase it. I don't go around and examine the cars and take plugs out of cars and ask the history of them.

Q. Then your answer is you know nothing about
1104 that prior to its coming into your hands? A. That is correct.

Q. How do you tell the different heat ranges of those three plugs? A. How do I tell?

Q. Yes, sir. A. All I could tell is hot and cold. I could not tell the exact heat range.

Q. Do you tell by observing the firing end of the plug? A. By the length of the insulator.

Q. When did you first see the spark plugs comprising Defendants' Exhibit O? A. I could not tell, I do not date the plugs as they come in.

Q. In what condition were those particular plugs when 1105
you first saw them? A. You are asking me an impossible question, to remember three plugs out of thirty thousand plugs.

Q. Do you know— A. They were in used condition.

Q. When you first saw them? A. Yes.

Q. Then what happened to them? A. We started our reconditioning process. First, we accumulate a quantity and we then start to process.

Q. You first saw those plugs when they were in used condition? A. Yes.

Q. Then what happened to them? A. They were put 1106
in bins until we started recondition them.

Q. And how did you trace those plugs from the time that you saw them in used condition until you are producing them here in court? A. How did I trace them?

Q. Yes.

Mr. Hood: I object to that question on the ground that there is no testimony that he did.

The Court: I think the answer would be, "'I selected them at random".

The Witness: I said that before.

The Court: You did not trace them?

The Witness: I just picked them out at random. 1107

Q. Perhaps I misunderstood your testimony. I understand that you first saw those particular three plugs in a used condition—they appeared to be in a used condition —did they have soot on them? A. Yes.

Q. Now, you are prepared to testify that those are the same three plugs which you originally saw in that condition? A. Yes.

Q. Then don't you understand my question when I say, how did you trace those plugs through your recon-

1108 ditioning process—you said you put them in bins? A. They are taken out of the bins and reconditioned and when I picked those plugs out, after they were finished—they had to be in a used condition before I started to recondition them.

Q. Did you do these operations yourself? A. No, sir, I do not operate any machine in the shop.

Q. As a matter of fact, Mr. Sanders, isn't it so that the first you saw of those plugs is when they came out at the end of your reconditioning? A. No, sir, I saw them when they came in.

Q. Do you examine the plugs when they come in?

1109

The Court: Just a minute. Aren't you saying that you assume that you saw them when they came in?

The Witness: I won't say that I saw this one, it may have been at the bottom of the pile.

The Court: Did you ever see those particular plugs so that you can identify them or have you assumed that they came into you in a used condition?

The Witness: When they came in, I usually examine that or my brother examines them.

1110

The Court: You don't put any identifying mark on them at any time?

The Witness: It is almost impossible.

The Court: Of course. Then the fact is that you assume that these came in in the usual course and that they were in used condition, isn't that what your testimony is?

The Witness: That's right.

The Court: Isn't that what you want, Mr. Schaffer?

Mr. Schaffer: Thank you, your Honor.

Q. Is that same answer true, Mr. Sanders, with respect to Defendants' Exhibit L, the three boxes of plugs? A. It is possible that I did see those plugs. 1111

The Court: You are not asked whether it is possible. Can you state whether you did or not? Did you pick these out at random?

The Witness: These were picked right off the shelf.

The Court: At random, or had you any specific reason for picking these out?

The Witness: There was a reason for picking the whole box out. 1112

The Court: As to Exhibit L, you mean that you picked these out in their final for —those are the three packages containing thirty plugs—you picked those out yourself?

The Witness: Yes.

The Court: But so far as you know, you had no prior knowledge of the plug?

The Witness: I think it is almost impossible to know that.

The Court: I should think so, too, I agree with you. We are simply interested in the facts. You said that you had no prior knowledge of these particular plugs but that you did, yourself, select them, when in boxes on your shelf, as a completed output of yours, is that right? 1113

The Witness: Yes, sir.

The Court: All right.

Q. How do you arrive at the estimate of fifteen or twenty per cent. of the plugs being equipped with new side electrodes? A. Well, we accumulate plugs that we

1114 put the new electrodes on and then the records are kept by the girls in the shop as to how many plugs she paints. From that you know about what percentage of the plugs have new electrodes.

Q. Is there any difference in the method of painting the ones with the new side wires? A. No different methods but it is a different lot, a different production line, they are all done at one time.

Q. All different kinds are done at one time? A. That's right—I don't get that question.

Q. All different kinds of plugs are done at one time? A. No, only one make, Champion, AC or Auto-Lite.

1115 Q. Do you make any distinction as to whether or not they have new side wires on these shells when you paint them? A. Oh, yes, it is one large production for new electrodes, it is all followed through.

Q. Who owns the building in which your business is operated? A. My mother and dad.

Q. Does your father still spend his time at your place of business? A. He lives upstairs and he is very seldom in the store because he has not been well for a very long time.

Mr. Schaffer: That is all.

1116

By Mr. Hood:

Q. Did you ever recondition any new plugs? A. No, sir.

Q. Do any plugs come into your shop and go through your reconditioning process that are not in used condition when you get them? A. No, sir.

Mr. Schaffer: I object to that question.
The Court: Overruled.
Mr. Hood: That is all.
(Witness excused.)

George Miller Pinney—for Defendants—Direct.

GEORGE MILLER PINNEY, called as a witness on behalf 1117
of the defendants, was first duly sworn and testified as follows:

Direct Examination by Mr. Hood:

Q. What is your occupation? A. I am sales engineer for the Driver Harris Company, Harrison, New Jersey.

Q. How long have you been with that company? A. Twenty-five years.

Q. Are you familiar with the #63 wire that they make? A. I am.

Q. Are you familiar with the wire which they make 1118
for the Champion Spark Plug? A. What do you mean "familiar"?

Q. I mean, you know—do you know anything about the wire? A. I know the approximate analysis.

The Court: (To witness) Do they make any special wire for the defendant in this case or is their #63 wire a staple line?

The Witness: We make seventy different alloys and #R-63 is the particular alloy that we have produced for twenty-five years for the purchase only for electrodes for spark plugs. It is for no 1119
other purpose.

Q. Will you give his Honor some idea of the type of companies that use wire?

Mr. Schaffer: I object to that.

The Court: Why?—I don't care what type of companies use it. If you are going to contest plaintiff's testimony as to the elements of defendants' wire, that is something else.

1120 Mr. Hood: That is all.

Mr. Schaffer: No cross-examination.

(Witness excused.)

HENRY F. DORGELOH, called as a witness on behalf of the defendants, was first duly sworn and testified as follows:

Direct Examination by Mr. Hood:

Q. Mr. Dorgeloh, what is your occupation? A. I am in the export business.

1121 Q. Do you have any business relations with the defendants? A. Yes.

Q. How long have you had those business relations? A. A few years.

Q. What is the nature of the business that you do? A. We export his plugs, spark plugs.

Q. How did you happen to begin exporting those plugs?

Mr. Schaffer: That is objected to.

Mr. Hood: This is important for one reason, your Honor.

1122 The Court: Why?

Mr. Hood: Because the question of whether people know these plugs are reconditioned. This witness got an order from abroad for reconditioned spark plugs and that is how he got in touch with my client.

The Court: I think that will probably be assumed. There is no issue in this case but that the defendants put these out as repaired or reconditioned

spark plugs. I do not know why you go on proving 1123
uncontested things.

Mr. Hood: I would like to have that one little item in the record.

The Court: I know what you would like, too, and I would like to bring the case to a close.

Q. How did you happen to start handling this line of plugs?

Mr. Schaffer: I object to the question.
The Court: Sustained.
Mr. Hood: Exception. 1124

Q. Did you get any orders for reconditioned plugs before you communicated with the defendants?

Mr. Schaffer: I object to the question.
The Court: Sustained.
Mr. Hood: Exception.

Q. What has been your experience as an exporter as to the knowledge of consumers that there is such an article as a reconditioned park plug?

1125

Mr. Schaffer: I object to the question.
The Court: Sustained.
Mr. Hood: Exception. They put in testimony on that point, your Honor.

The Court: I did not hear any testimony that consumers did not know that these were reconditioned plugs.

Mr. Hood: I did not mean that, but some of their repair men said that they never had a call for reconditioned plugs.

1126 The Court: All right, but this gentleman deals with a foreign trade. I think that he has served his purpose as a witness.

Mr. Hood: That is all.

Mr. Schaffer: No cross-examination.

(Witness excused.)

GEORGE GEDDIE, called as a witness on behalf of the defendants, was first duly sworn and testified as follows:

Direct Examination by Mr. Hood:

1127 Q. Mr. Geddie, what is your occupation? A. I am fleet maintenance superintendent.

Q. Where are you employed? A. At the present time by Liebmann Breweries.

Q. How many automotive vehicles do you have under your supervision? A. Three hundred.

Q. Where were you employed before that? A. By the Sheffield Farms Dairy.

Q. In what capacity? A. In the same capacity.

Q. And how many automotive vehicles did you have under your supervision at Sheffield Farms? A. About
1128 fifteen hundred.

Q. And are you familiar with the various makes of automotive engines? A. Yes, sir.

Q. Can you tell his Honor what the facts are with respect to the visibility of the hex of a spark plug when installed in an automobile engine?

Mr. Schaffer: What type?

Mr. Hood: You may ask him that.

The Court: It depends on the cylinder head.

The Witness: And design.

The Court: I assumed that.

Q. Well, is it visible or not? A. On L head motors, 1129
it is nearly always visible and in an overhead valve motor it is not so visible.

Q. And what type of motor, with reference to L type or overhead valve motors do the great majority of cars use? A. The L head.

Q. From your experience, can you tell his Honor whether or not the words "reconditioned spark plugs" have some generally accepted meaning?

Mr. Schaffer: I object to the question.
The Court: Overruled.
Mr. Schaffer: Exception. 1130
The Witness: Yes.

Q. Will you state to his Honor what the meaning is as you understand it? A. A plug that has been put in operating condition.

Q. What is your understanding with reference to the cleaning or repairing of a plug, when they are called reconditioned? A. I fully understand a reconditioned plug to be one merely cleaned and put in as near the condition it was originally, without replacement of any parts.

Q. Without putting in new cores or things of that sort? A. Exactly. 1131

Q. When they put in new cores and replace all worn parts with new parts, what kind of a plug is that called?

Mr. Schaffer: I object.
The Court: Overruled.
The Witness: Under a demountable plug I would call it a rebuilt plug.

Q. Are you familiar with new Champion spark plugs? A. Yes, I may say yes.

1132 Q. You have examined them? A. Oh, yes.

Q. And you have examined the defendants' reconditioned spark plug? A. I have.

Q. Now, is it possible for you, with your experience, to tell by examining the firing end of a spark plug the heat range of the plug, without reference to the trade mark or the type mark? A. Not exactly.

Q. How close could you, with all your experience and qualifications, come to that?

Mr. Schaffer: I object.

The Court: Objection overruled.

1133 The Witness: Probably within two heat ranges, I would say.

Q. Have you ever yourself, on behalf of your employers, had business relations with the defendants?

Mr. Schaffer: I object to that.

The Court: Overruled.

The Witness: I have.

Q. And what was the nature of those business relations? A. We purchased them as they represented them,

1134 as reconditioned plugs.

The Court: Who is "we"?

The Witness: The company that I was with at that time.

Mr. Schaffer: May it please the Court, I wish to object to this line of questioning at this time. We were precluded, and properly so, from going into the names of customers. I assume that this testimony will be directed to the names of customers of the defendant company.

Mr. Hood: No, that is not the purpose at all. 1135
The Court: Well, if he says "no", I will take his word for it.

Q. What quantity of plugs do you estimate you have bought and used in automotive vehicles under your supervision? A. Over a term of years, that would be a hard question to answer, many hundreds in any case, repeat orders.

Q. Well, can you estimate the number that you use per year? A. No.

Q. Will some of these orders refresh your recollection? (Handing witness papers.) A. Yes, they do, I am familiar with these orders. 1136

Q. Mr. Geddie, have you purchased as many as five thousand at a time? A. I believe on one occasion we did place an extraordinarily large order—on one occasion.

Q. So that the number of defendants' plugs that you have bought and used in automotive vehicles under your supervision would run in the tens of thousands?

Mr. Schaffer: I object to that.
The Court: Why do you insist upon putting testimony into the witness's mouth when he said that he could not tell you the details, and what difference does it make anyhow, whether it was ten thousand or a million? 1137
Mr. Hood: I just want to show that it is a large quantity.
The Court: He said that he has bought many hundreds a year —that is his testimony unaided by you and it will be his testimony that I will rely on, and not yours. Now, assume that he has bought many hundreds per year.—Next question.

1138 Q. Did you make any operating tests in these cars of the defendants' reconditioned plugs in direct comparison with new plugs? A. We did, from time to time.

Q. Will you tell his Honor the nature of these tests?

Mr. Schaffer: I object.

The Court: Now, what are you going to prove?

Mr. Hood: The nature of the tests.

The Court: But after having proven that, what are you going to prove?

Mr. Hood: That's all.

The Court: Then, what does the nature of the
1139 test do to help in the issues in this case?

Mr. Hood: To show his experience.

The Court: Suppose his experience is that the defendants' plugs are better than plaintiff's.

Mr. Hood: Yes.

The Court: That would be the extreme position.

Mr. Hood: Yes.

The Court: What has that to do with the issue in this case?

Mr. Hood: I will show you.

The Court: I certainly wish you would.

Mr. Hood: Their engineer testified that these
1140 plugs had changed heat ranges and because of the heat range changes and the difference in operation in the engine, it would cause it to knock and ping and so forth and they have also testified that the ultimate practical test of durability and the work of a spark plug is in actual performance in a particular engine.

In view of that testimony I am entitled to show what the actual performance is, due to the fact that their engineer attached preeminent value to it.

The Court: Do you think that this case turns on the durability of the defendants' product? 1141

Mr. Hood: No, but I think in view of their testimony, I think I am entitled to put in something in opposition to it.

The Court: I will tell you that according to my notion durability does not influence the decision in this case in the slightest. I am willing to concede for the sake of argument that the defendants' product is better than the plaintiff's product. I still say that does not help the Court to determine whether the defendant has the right to sell these as Champion spark plugs. 1142

Mr. Hood: What I have to bear in mind, your Honor, is this, to be frank with the Court. They have put this in evidence in the record and perhaps some other court may feel differently.

The Court: I think you will find that it was mostly on cross-examination.

Mr. Hood: I am not so sure about that, but if the case is reviewed, some other Judge might take a different view. He might want to know what the actual function is due to all this talk about actual functioning. 1143

The Court: The talk was not about the practical functioning but about the necessity for a specific design of the various types of spark plugs that the plaintiff employs. Plaintiff says that it adopted specific designs, relationship and critical dimensions and so forth.

Mr. Hood: Yes, Judge.

The Court: Now, your argument is——

Mr. Hood: Yes.

1144 The Court: Your argument comes down to this, that you think they are silly and even were I to think they may be silly, they still have the right to protect their trade mark. That is the thing that you seem to resist. You do not seem to be able to grasp that point. The question is has the plaintiff the right to protect its trade mark or hasn't it.

Mr. Hood: Has the right to protect it against confusion of goods.

The Court: And the question of the durability of the defendants' product has nothing to do with
1145 it.

Mr. Hood: With confusion of goods, certainly, but in view of their testimony I think it is only fair that I should be permitted to put this in.

The Court: Why do you labor the point? This gentleman buys hundreds of plugs a year. Do you suppose that he would do it if he did not consider them of value to use?

Mr. Hood: I will explain to your Honor——

The Court: I don't want an explanation. Don't you suppose that anybody with average intelli-
1146 gence can understand that this gentleman would not be buying defendants' plugs unless he thought there was a good reason for doing it?

(To witness): That is all that you are here to tell us, is it?

The Witness: Correct.

The Court: Don't waste time, I have other things to do.

Mr. Hood: If your Honor will not permit me to show the practical functioning of the plug——

The Court: I sustain the objection.

George Geddie—for Defendants—Cross.

Q. What has been your experience with defendants' plug in operation in your engines? 1147

Mr. Schaffer: I object to that.

The Court: I will allow the question. Probably he won't go very far in view of what I have said.

The Witness: They were satisfactory.

Q. Have you any further comment to make? A. No.

Q. Did some of the plugs that you bought have new side electrodes? A. Some.

Q. And does the same comment apply to those as to those that did not have side electrodes? A. I would say yes. 1148

Mr. Hood: That is all.

Cross-Examination by Mr. Schaffer:

Q. Are you at present using defendants' product? A. Not at the present time, no, sir.

Q. How long has it been? A. I have been with a different concern since that time.

Q. You do not use them with the concern where you are now employed? A. No.

Q. What plugs are you using there? A. Well, we are using new plugs, from stock. 1149

Q. What make? A. Both Champion and AC.

Q. Do you know whether the company where you were previously employed, whether they are still using defendants' product? A. That I don't know. It is seven months since I left them.

Q. You are not prepared to say? A. No.

Mr. Schaffer: That is all.

1150 *Re-direct Examination by Mr. Hood:*

Q. What is the reason that you are not using defendants' plugs in your present place of employment?

Mr. Schaffer: That is objected to?

Mr. Hood: It is in clarification of his cross-examination, your Honor.

The Court: I do not think the reason has any real bearing.

Mr. Hood: Neither has the fact that they are not using them now.

1151 The Court: Well, why is it important in a decision of this case to know why this witness' employer is not using defendants' plugs?

Mr. Hood: From what is now in the record an incorrect inference might be drawn.

The Court: Well, I say it is not necessary to establish a reason.

Mr. Hood: There might be an inference drawn that they were disappointed in the plug.

The Court: I am not going to draw any inference at all that in the exercise of their judgment they used new plugs. You will have to allow me

1152 to decide these things. I will not permit the question.

Mr. Hood: Exception.

Q. What was the condition of the stock of new spark plugs at your present place of employment when you took over your present job?

Mr. Schaffer: That is objected to.

The Court: Objection sustained.

Mr. Hood: Exception.

That is all. 1153

(Witness excused.)

(Recess taken until 2:00 P. M.)

AFTERNOON SESSION.

Brooklyn, New York,
April 4, 1945—2:00 P. M.

Mr. Hood: At this point, your Honor, I desire to read into the record certain affidavits which 1154
have been the subject of a stipulation between counsel to the effect that such portions thereof, deemed desirable, may be read into the record with the same force and effect as though a deposition were taken.

Mr. Schaffer: Your Honor, I think I can anticipate this reading for the reason that I am familiar with the affidavit and of course it has already been filed in the case and I should like to be permitted to state that this relates to the testimony of one, Reich, in Kansas City, Missouri, with reference to his alleged inability to sell these so-called 1155
reconditioned spark plugs with the trade mark removed.

Your Honor will undoubtedly recall from the additional affidavits——

The Court: Those affidavits were considered on the preliminary injunction?

Mr. Schaffer: Yes, sir. The reason that I raise the point is I understood your Honor said at the outset of the trial that while that was requested by you in connection with the preliminary injunction,

1156 here was some doubt as to whether that would form an issue during the trial on the merits.

The Court: Mr. Hood, I do not like to have you take up time reading from the affidavit. Why don't you agree that reference may be had to the affidavit and if you make up a record on appeal that certain agreed portions can be included in the record, without prejudice to the right of the plaintiff or the defendant to assert that those matters have no bearing on the issues in this case?

The question of whether Reich, or whatever his name was, was unable to continue in business is not
1157 very important and I am satisfied, from what was shown in the preliminary injunction, that there is a business being conducted that was formerly owned by him and I do not want to waste a lot of time on that now.

* * * * *

It is stipulated that if the witness Reich were called and sworn as a witness for defendants, he would testify as follows:

I was the defendant in the case of Champion Spark Plug Company, a corporation vs. J. F. Reich doing busi-
1158 ness as Automotive Products Company in the District Court of the United States for the Western Division of the Western District of Missouri. At the time that suit was filed against me I was engaged in the business of reconditioning spark plugs, operating in Kansas City, Missouri under the name of the Automotive Products Company, and marketing my products throughout the United States. My business consisted of buying used spark plugs which had been discarded, subjecting them to a series of processes which resulted in restoring them to usefulness and then selling them to jobbers and automotive accessory

dealers who, in turn, retailed them to the general public. 1159
Spark plugs were sold under the representation that they were used or second-hand spark plugs originally manufactured by the Champion Spark Plug Company (or, in the case of plugs of other manufacturers, by the particular company who manufactured them) which had been subjected to my exclusive reconditioning process and restored to usefulness and guaranteed by me to give satisfactory service or at least 10,000 miles of actual operation in an automobile.

It was, of course, just as essential that I inform the buying public of the name of the original manufacturer as it would be if I were selling second-hand automobiles, 1160
typewriters, baby carriages or any other used article. The buying public, seeking a second-hand spark plug, had the right to know and demanded to know the name of the original manufacturer.

The Champion Spark Plug Company, after making formal demand upon me to remove its name and trade mark from my reconditioned spark plug so as to conceal its identity as the original manufacturer of such used spark plugs, brought an injunction suit against me in the United States District Court for the Western Division of the Western District of Missouri, before the Honorable Albert
L. Reeves, Judge. The purpose of that suit, as expressed 1161
by the pleading, was to compel me to remove the Champion name from my reconditioned spark plugs, remove the type numbers placed on such plugs by the Champion Company, paint the plugs red, label them as used spark plugs, and completely obliterate the origin of such plugs, so that the purchaser thereof would have no means of knowing whether or not my reconditioned spark plugs were originally those of Champion make, or were of some inferior grade.

1162 After a preliminary hearing Judge Reeves refused to enjoin my product on condition that the buying public be protected by indenting in the hex portion of the metal shell of each spark plug the words "repaired by A. P. Co." and by packing each spark plug in a carton bearing the legend or recital that the plugs therein contained, while not new, was one that had originally been manufactured by the Champion Company, repaired or reconditioned by me, and was guaranteed to give 10,000 miles of satisfactory use. I was not required to remove the Champion name or the Champion type numbers from the plug.

I operated under this condition imposed by Judge
1163 Reeves about three years, and during that time I found that the marking of the individual plug as a repaired plug and the statement on the carton that it had been repaired by me had no effect whatever on my volume of sales. If anything, I noticed some increase in the volume of my business after marking the plugs in accordance with the uirements laid down by Judge Reeves. The Champion npany appealed from this order of the District Court the United States Circuit Court of Appeals for the hth Circuit, and that court rendered an opinion under ich I was placed under a perpetual injunction, the terms of which required that I remove the Champion name and
1164 type numbers from the plug originally manufactured by the Champion Company, and that I would not be permitted to show the Champion name on the carton in which the plugs were shipped.

I then transferred my business and assets to a corporation organized and incorporated under the name of the Standard Parts Incorporated. That corporation operated for about a year and was then dissolved. Since the dissolution of that corporation, its physical assets, consisting of the machinery necessary for reconditioning spark

plugs, have been acquired by others who have made an attempt to continue the business, but apparently without success. 1165

* * * * * *

When the corporation was formed, I continued to operate the business as its manager. The effect of taking the Champion name off the spark plugs and removing the Champion type numbers therefrom was both immediate and disastrous. Notwithstanding the fact that, because of the war, the demand for reconditioned spark plugs tremendously increased, the corporation operated for approximately one year without a profit. Since the dissolution of the corporation those who took over the physical assets 1166
of the business, consisting of its machinery, have endeavored to continue a limited operation confined almost entirely to a small export business.

My own experience, in operating the corporation as its manager, was that the sales resistance created by the injunction was two-fold. In the first place jobbers everywhere found an unwillingness on the part of the buying public to purchase a second-hand article without knowledge of the source of its original manufacturer. The ultimate consumer, entitled to know the origin of the second-hand spark plug he was buying, was unwilling to make a 1167
purchase in the presence of opportunity to be deceived into buying a second-hand article which was originally of grossly inferior manufacture upon the oral representation that it had originally been manufactured by a reputable spark plug company. The consumer had no means of knowing the origin of the second-hand spark plug that he was buying.

The second element of sales resistance arose from the fact that, both under the injunction and under the physical process necessary to remove the Champion name it was

1168 necessary to remove the type number from the plug. Consequently, neither the dealer nor the consumer had any way of knowing the type of the particular plug he was buying. In spite of the fact that the corporation attempted to overcome that difficulty by providing new type numbers for the plugs which it reconditioned, the confusion created by the removal of the original type number was only increased thereby. It is, of course, well known that a spark plug is virtually useless unless its type number is known. The attempt to educate the buying public to a new set of type numbers was too great a handicap to be overcome.

1169 These two elements of sales resistance account for the failure of the corporation to make a profit from its operation, notwithstanding the enormous increase in demand for reconditioned spark plugs which was occasioned by the war.

From my own knowledge of the business of reconditioning spark plugs, it is impossible to operate such business successfully without furnishing the buying public with adequate sources of information from which they may readily learn the fundamental truth of the origin of the second-hand article they propose to buy. The truth cannot well be told if the original trade mark is destroyed.

1170 Unscrupulous reconditioners would immediately take advantage of such a situation by reconditioning spark plugs of inferior grade unknown to the buying public, by making the implied representation that they are reconditioned spark plugs originally manufactured by reputable concerns. The public is entitled to know the truth.

* * * * * *

Mr. Hood: I think your Honor's suggestion is a good one but in reference to engineering affidavits, I prefer to go ahead and read them.

The Court: What are they? 1171

Mr. Hood: One of the engineers from Pratt Institute in Brooklyn was transferred to an Institute in Texas. Rather than take his deposition, I would like to read from his affidavit.

The Court: The only difficulty with that is he is not subject to cross-examination.

Mr. Hood: That was appreciated when we made the stipulation and it is also true of all of the testimony that has been admitted on the plaintiff's side under a similar stipulation.

The Court: Well, the only testimony on the plaintiff's side, I think, was the testimony of Stranahan, 1172
as to the volume of business.

Mr. Hood: Stranahan, Corwin and Speyer.

The Court: Stranahan's testimony, according to my notes, had to do with the volume of business and the fact that the company had been engaged in the business for more than twenty-five years and that the total sales were 240,000,000.

Corwin, the sales manager, said something about a trade mark on the edge of the carton, the type number—that is not disputed. What possible cross-examination could develop in both matters?

Mr. Hood: I do not think that is an issue before 1173
the Court.

The Court: I am meeting your suggestion that certain testimony was stipulated in this record as to which the witnesses could not have been cross-examined.

Mr. Hood: That is right.

The Court: And I say, as to those matters, do you assert that cross-examination could have altered any of that testimony?

1174 Mr. Hood: I don't know, Judge.

The Court: Well, I think if you did know you would say so. Now, you are asking to stipulate expert testimony in the record?

Mr. Hood: Oh, no, your Honor, the stipulation is if the witness were called he would testify in accordance with the affidavit. It is the same stipulation we made with the other.

The Court: All right. I am calling your attention to the fact that such testimony is not subject to cross-examination, that is all I say. You have stipulated that it goes in, so go ahead with it.

1175 Mr. Schaffer: Subject to objection, your Honor. We reserved our right to object.

The Court: All right. Now, what is it that goes in?

Mr. Hood: I want to read from the affidavit of Hugh Cameron, which affidavit was made in May of 1944.

Mr. Schaffer: Your Honor, the plaintiff objects to the introduction of this testimony on the ground that it is immaterial, in accordance with the previous rulings from the Court and it only goes to

1176 the quality of defendants' product.

Mr. Hood: His Honor has not heard the testimony yet. May I proceed?

The Court: Yes.

Mr. Hood: I read from the affidavit as follows:

"I am a graduate of Stevens Institute of Engineering with a degree of Mechanical Engineer and I am and have been for some years past"—and I might say in passing that is as of May, 1944, your Honor—"instructor of Mechanical Technology in Pratt Institute, Brooklyn.

Reading of Affidavit of Hugh Cameron.

"In the laboratory at Pratt Institute we con- 1177
stantly maintained a set-up of internal combustion engines.

"At the time of the last friction between the parties of this law suit, at which time a Federal Trade Commission proceeding was pending, I conducted tests at Pratt Institute of new spark plugs, manufactured by the plaintiff, in comparison with the reconditioned plugs of defendant. One of the defendants gave me four boxes of ten each, of various sizes, new Champion plugs, and four boxes of reconditioned Champion plugs, of the same type.

"I first checked the gaps of the new plugs with 1178
the reconditioned plugs of the same type, and found there was very slight discrepancy between them, that is, the new plugs and reconditioned plugs of the same type showed about the same variation in gap. Thereupon, I set all the plugs, new and reconditioned, at twenty-five thousandths of an inch gap and tested for firing under pressure at eighty pounds per square inch. Both new and reconditioned plugs fired without any trouble——"

Mr. Schaffer: I object to that testimony on the ground that it is immaterial and also on the ground 1179
that the witness is not qualified as an expert to express such an opinion.

The Court: Objection overruled.

Mr. Schaffer: Exception.

Mr. Hood: (Continuing reading):

"Then I made up an apparatus consisting of pipe fittings with a volume of nine hundred and thirty-two centimeters and then inserted into that apparatus the various plugs and recorded the pressure drop. In this test, likewise, I found that the varia-

1180 tion was practically identical, in every case, between the new and reconditioned plugs.

"I had no difficulty in distinguishing between the new and the reconditioned plugs. The reconditioned plugs had the electrodes slightly worn, the printing on the porcelain trademark was slightly worn, and the metal parts of the reconditioned plugs were very distinguishable from the new.

"As a final practical test, I put six of the defendant's reconditioned plugs in my Chevrolet car. I put them in at twenty-one thousand miles, and when the test was concluded at twenty-eight thou-
1181 sand seven hundred miles, they had operated satisfactorily and has given me no trouble, and had functioned just as well as new plugs."

Mr. Hood: Then, your Honor, I desire to read from the second affidavit of Cameron, the affidavit of June, 1944. He makes similar statements as to his qualifications, which I will skip.

Mr. Schaffer: May it please the Court, I object to the introduction of this testimony as irrelevant and immaterial.

The Court: You are speaking now of that which
1182 has been read from the affidavit of May, 1944?

Mr. Schaffer: Yes, sir.

The Court: I think I will overrule it.

Mr. Schaffer: Exception.

Mr. Hood: (Reading):

"Engineering science does not permit exact theoretical pre-calcuation as to the ideal spark plug and the final judgment upon the plug must depend upon its actual performance in the engine. There are many admissions in"—"The ideal plug is that which will afford the best combustion in the par-

ticular engine, and the ideal theoretical plug is af- 1183
fected by many factors which have nothing to do with the preconceived design of the plug. Among such factors are:

1. Age and condition of motor.
2. Type of gasoline used.
3. Carbureter setting.
4. Atmospheric pressure.
5. Humidity.
6. Temperature of the air. 1184
7. Speed of the motor.
8. Temperature of engine.
9. Load on engine, and service conditions.

"In practice, however, he is not only up against the above variables but also the fact that any two engines, presumably identical, would in practice show different ideally theoretical spark plug requirements due to inherent differences; and even different cylinders in the same motor would have different ideal spark plug requirements, due to dif- 1185
ferent operating temperatures, different efficiency of valves, and even differences in the gasoline mixture reaching the various cylinders.

"The above wide list of variable factors will make it plain to the Court that the preliminary calculations of the spark plug manufacturer can give him only a general idea of the ideal type of plug.

"In view of the above conditions, it is technically impossible for an engineer to show on purely theo-

1186 retical grounds that the defendants' reconditioned plugs can no longer be regarded as Champion spark plugs. Any proper judgment thereon must be based upon the comparative actual performance in engines of the new Champion plugs and the reconditioned Champion plugs. Operation both in testing equipment and in actual use in engines, shows that the reconditioned plug fires as well and performs as well as a new plug. There is, therefore, no engineering basis for saying that the defendants' reconditioned plugs are no longer reconditioned Champion spark plugs.

1187 "I should like to add some further comment about certain criticisms offered of the reconditioning process——"

Mr. Schaffer: Your Honor, may it be understood that I am waiting until Mr. Hood finishes reading before objection?

The Court: Yes.

Mr. Hood: (Continuing reading):

"I should like to add some further comment about certain criticisms offered of the reconditioning process. It is said that there is a petticoat on the porcelain which prevents oil from getting on 1188 the electrodes and that this petticoat is destroyed by reconditioning. In the first place, the oil has to come from below the cylinder. It could not come from above. Consequently some of it would land on the electrodes before hitting the petticoat, so the petticoat would appear to have no functional value to speak of. The conclusion that it has no functional importance is supported by the satisfactory functioning in practical operation of the reconditioned plugs, which show no interference with their

performance due to any changes in the petticoat. 1189
Secondly, since the plaintiffs recommend reconditioning of the insulator with abrasives, and it is [illegible]e action of the abrasives upon the petticoat of which plaintiffs complain, it is to be presumed that allowance is made, or certainly it should be made, by plaintiffs' designers in the formation of the insulator and plug, so as to see to it that no functional change occurs in the plug as a result of the abrasive effects of reconditioning.

"The placing of a new side electrode upon some plugs by the defendants, I consider a minor repair. 1190
The defendants have stated to me that they used the same wire in repairing the side electrode as is used by high-grade spark plug manufacturers in general, consisting of about 96% nickel, together with manganese and silicon. The plaintiffs claim that the alloy they use in the electrode consists of nickel, manganese, silicon and zirconium, and that the patent on the alloy has expired. This would indicate to my mind that manufacturers of the wire purchased and used by the defendants have had the benefit of the information contained in the expired patent, and have made up an alloy to meet the 1191
same purpose, but have apparently rejected the use of zirconium. In view of the satisfactory performance in actual practice of the defendants' plugs, I would say that the alloy wire used by the defendants to repair the side electrode is of high quality and no proper object of any complaint by the plaintiffs.

Finally, I would like to advise the Court that in my opinion taking off the trade and type marks of the plug with acid would impair its functioning and

1192 diminish its inherent value. This is due to the fact that the pores of the porcelain insulator are protected with a baked on glaze. The effect of the acid would be to remove the glaze which would make the insulator porous and cause the surface to quickly become dirty with various materials which are electrical conductors, and would cause the porcelain to lose value as an insulator. This would cause the spark to jump across the insulator and make the spark plug useless. A further injurious effect of this proposed practice would be that the acid would injure the sealing effect of the gasket on the plug
1193 and would cause the spark plug to leak compression, making the plug unsatisfactory in practice, irrespective of the aforesaid electrical leakage."

Mr. Schaffer: I object to the admission of this affidavit, that part which has been read, as purely an argument on the issues of the case and that no foundation has been laid for any experience of this witness or the alleged tests which he conducted and the tests have no evidenciary value.

The Court: I think most of what you say goes to the weight rather than the admissibility of the testimony. I know from certain portions of the affi-
1194 davit read, apparently the gentleman thinks he is the United States District Judge and there to decide the issues in the case. I do not so understand his position. However, I will take it for what it is worth.

Mr. Hood: Pursuant to a similar stipulation, I desire to read the testimony of one Robert L. Baldwin——

The Court: Now, do you mean the testimony or the affidavit?

Mr. Hood: We have stipulated, Judge, that the 1195
two engineers who testified in the Reich case——

Mr. Schaffer: You mean the two engineers who made affidavits in the Reich case.

Mr. Hood: You are right. I will read the language of the stipulation to the Court.

"That if Robert L. Baldwin were called and sworn as a witness in this cause, he would testify in accordance with his testimony in the case of Champion Spark Plug Company vs. J. F. Reich, doing business as Automotive Products Company, as follows:"

Then there was another stipulation on the witness 1196
Hawthorne and then a stipulation on the right to read these affidavits and the right also to object to any portion thereof.

The Court: Go ahead.

Mr. Hood: (Reading)

"I am a member of the engineering firm of Burns and McDonnell Engineering Company, consulting engineers of Kansas City, Missouri, and have been associated with that firm of engineers for the past thirty years, with the exception of two years in 1914 and 1915, during which time I was an ap- 1197
praisal engineer for the Public Service Commission of the State of Missouri. I am a graduate electrical engineer, holding the degree of Bachelor of Science and the degree of Electrical Engineering from the University of Missouri, which degrees were obtained in 1906 and 1908, respectively. During all the times since my graduation, I have been engaged in electrical engineering work. I am a Fellow of the American Institute of Electrical Engineers.

1198 "I have been consulted by Mr. J. F. Reich, the defendant in the above entitled cause, with whom I have had no previous acquaintance, and by his attorneys, with respect to the electrical principles hereinafter stated in this affidavit, and in connection with such consultation I have been shown various spark plugs, exhibits, drawings and printed matter hereinafter more particularly mentioned.

"The principal parts of a spark plug which have to do with conducting the electric current to the combustion chamber of an internal combustion engine are: (a) the electrodes, two in number, (b) the
1199 core or insulating material around the center electrode, and (c), the metal shell. The electrical spark which ignites the gases in the combustion chamber results from the flow of electricity across the space between the two electrodes, usually known as the 'spark gap.'

"An electrical current follows the path of least resistance and will jump across the spark gap at the firing end of a spark plug from that point on one electrode which offers the least resistance to a point on the other electrode; in other words, it
1200 will jump to the nearest point. Even though the electrodes of a spark plug may be presented to each other as parallel planes, the flow of the spark across the gap will be from point to point, and not from plane to plane; that is, the spark will not occupy and flow from the whole of one plane surface to the whole of the opposing plane surface, but will flow from a point in one surface to a point in the other. The use of electrodes presented to each other as parallel planes may prolong the life of the electrodes, but will not increase the size or intensity of

the spark. Under the microscope, the plane sur- 1201
faces would be found to be rough and uneven with numberless peaks, and the spark will jump from one of these peaks to a peak on the opposing electrode. In my opinion, it is not possible, commercially, to manufacture spark plug electrodes with true plane surfaces, nor to set them in true parallel planes. I have been shown a drawing marked Plaintiff's Exhibit 22, from which I note that the diagram in the upper left-hand corner marked 'New J 9' attempts to illustrate electrodes presenting parallel planes. In my opinion, the spark in such a spark plug would not consist of a flow of electricity 1202
covering the entire end of the center electrode and extending to an equal surface on the ground electrode, or, in other words, a spark as wide as the area of the face of the center electrode; but, on the contrary, the actual spark created in such a spark plug would be a spark extending from one point in that area to the nearest point on the opposing electrode. The area of the sparking surface bears no relation to the intensity of the spark and, no matter what the relative position of the two electrodes is to each other, the intensity of the spark will be the same if the gap remains the same. 1203

"The time of delivery of the spark could not be affected by a shortening of the center electrode. It is mathematically true that if the length of the center electrode should be reduced ⅛th of an inch, the electrical current would have less distance to travel before reaching the spark gap, and, therefore, would take less time to reach the gap. The difference in time would be, of course, the time it would take an electrical current travelling at the rate of 186,000 miles per second to travel ⅛th inch.

1204 "It is my opinion that a slight variation in the location of the spark within the combustion chamber such as the variation which would be caused by shortening the center electrode 1/64th of an inch or even 1/32nd of an inch and adjusting the ground electrode correspondingly, so as to give the proper gap, could not possibly affect the operation of the engine in question.

"One of the principal functions of the porcelain core with which the center electrode is surrounded is the function of insulation. It is, of course, necessary that the center electrode be separated elec-
1205 trically from the metal shell, in order to prevent a short circuit through the plug. A sand blasting operation for the removal of carbon, oxides and oils from the firing end of the core which would result in shortening the length of the core would not impair its efficiency as an insulator against the escape of electricity."

Mr. Schaffer: Your Honor, the entire deposition is objected to as irrelevant and immaterial and I have a specific objection to the paragraph which states the witness' opinion about the location of
1206 the spark caused by the shortening of the center electrode. There has been no basis laid for his qualification for giving an opinion on that whatsoever.

The Court: Oh, I will take it.

Mr. Schaffer: Exception.

Mr. Hood: I desire now to read the stipulated testimony of one Joseph G. Hawthorne.

Mr. Schaffer: It is only stipulated that if this person were called as a witness, he would so testify. The plaintiff is not stipulating the truth of it.

The Court: I understand.

Mr. Hood: (Reading): 1207

"I am the Vice-President and General Manager of Kansas City Testing Laboratory, a commercial chemical engineering organization in Kansas City, Missouri.

"For the past twenty-five years and more, I have been specializing in chemical engineering and am thoroughly familiar with the various engineering, chemical and electrical principles covered by this affidavit.

"At the request of Mr. J. F. Reich, whom I had not previously known, and at the request of his attorneys, I have made a detailed study of the mechanical, electrical and chemical problems involved 1208
in the above captioned cause, in the course of which I have examined various spark plugs——"

The Court: Is this repetitious of what Baldwin said?

Mr. Hood: No, Judge.

The Court: Ordinarily in a patent cause, you know, we have just one expert anyhow.

Mr. Hood: They agreed that we could introduce this testimony, sir.

The Court: I don't think so. I don't think they 1209
would have reserved the right to object if they had agreed that you could introduce it.

Mr. Hood: My understanding that there might be certain parts that they might object to.

Mr. Schaffer: We had a specific agreement that we could object to any part of the testimony.

The Court: I do not see how it is compatible with an agreement to introduce that they could reserve the right to object. Why should you have more than one expert? You are calling one anyhow,

1210 aren't you? Is this that you are about to show that the "removal operation" conducted on the witness stand at this trial did not take place?

Mr. Hood: No, Judge.

The Court: Well, what is it intended to show?

Mr. Hood: There is a paragraph here about the effect of hydrofluoric acid upon a plug and upon workers who handle the plug.

The Court: Has this gentleman conducted experiments or is he guessing?

Mr. Hood: I think he is testifying as a chemical engineer.

1211 The Court: Now, you heard what I asked you, has he conducted experiments or is he guessing as to what might happen to workers?

Mr. Hood: He says that he has made a detailed study of mechanical, electrical and chemical problems involved.

The Court: Have you read the affidavit?

Mr. Hood: Yes, I have.

The Court: Then you can answer my question.

Mr. Hood: Well, I haven't read it just a half hour ago.

The Court: Well, read it now and tell me whether
1212 what he says upon the subject of hydrofluoric acid in removing decorations is based upon any experiments that he made or not.

Mr. Hood: (Examining document) He states the characteristics of hydrofluoric acid, its nature and the caution necessary to use it and the practical effect of the use of the acid upon the upper end of a porcelain core.

The Court: Has he ever applied it?

Mr. Hood: He does not say that he has, spe- 1213
cifically.

The Court: Unless he has, I should pay no attention to that whatever. The only relevant testimony on that subject would involve a duplication of what took place here in court.

Of course, you have the right to put a witness on the stand who will use the same solution and make the same effort, and if it is possible he can develop a different result but I am not interested in some testing laboratory's Vice-President's guess as to what would happen if hydrofluoric acid were applied, generally or specifically. 1214

Mr. Hood: May I read this paragraph to your Honor which has to do with a second shortening of the center electrode?

The Court: Yes.

Mr. Hood: (Reading):

"One purpose of the porcelain core is to protect the center electrode against overheating. If too much of the center electrode is exposed at the firing end and the plug should be set at an angle in the engine, there would be some likelihood that the end of the electrode would become overheated, causing preignition, and if it became too hot, it would bend 1215
under its own weight and either contact the ground electrode or fall away from it. As a general rule, the center electrode in the spark plug extends about ⅛th of an inch beyond the end of the porcelain core. In a reconditioning process by which the end of the porcelain core may be shortened, I would not expect any overheating of the center electrode to occur provided the electrode did not extend more than approximately ⅛th of an inch beyond the end

1216 of the core as shortened, so that in my opinion the shortening of the firing end of the porcelain insulator would not cause overheating or preignition."

Mr. Schaffer: May I ask counsel whether he intends to read the last paragraph?

Mr. Hood: What is the last paragraph? (Examining affidavit) No, I am not.

Mr. Schaffer: May I read it, your Honor?

The Court: Of course, subject to objection.

Mr. Schaffer: I will read now the last paragraph of the affidavit of Joseph G. Hawthorne:

"The use of paint or lacquer, such as Duco,
1217 Dulux, or otherwise, on the metal shell and bushing nut would have this result: There is no paint or lacquer which will resist the heat to which a spark plug is subjected in normal use in an internal combustion engine. The paint, if used on the threads of the plug, would burn and tend to seal the plug in the engine block so that it would be difficult, if not impossible, to remove the plug without breaking it off. The paint in the upper part of the shell would melt, burn, peel, char and further tend to seal the plug in the engine block. It is my opinion that the use of paint or lacquer, such as Duco,
1218 Delux or other similar material on spark plugs as suggested in plaintiff's bill of complaint, would greatly impair their usefulness."

Mr. Hood: Now, I object to that as having no bearing on the direct testimony of the witness and not admissible as cross-examination and not material because this element is not in issue in the case.

The Court: Of course, you are familiar with the rule that if one part of a deposition is read by one

party the remaining part may be read by his ad- 1219
versary. This is in effect a deposition. You read a part of it.

Mr. Hood: That's right.

The Court: Now, your adversary has the right to read the other part.

Mr. Hood: That's fine but if I may say something on the point, your Honor, it seems to me that only applies where the portion being read has to do with the part that has been read by the opposition. If it has no relationship, then the rule does not apply.

The Court: I just don't agree with you. In other words, it is open to either side to show that the 1220
witness put his foot in it once in a while.

Mr. Hood: I would like to ask Mr. Sanders one more question——

The Court: No, no, no. You have had Mr. Sanders on the stand twice now and that is enough.

Mr. Hood: Pursuant to a demand served by the defendants, pursuant to Rule 36 of the Rules of Civil Practice, the plaintiff admits that each of the following statements is true:

"An electrical current follows the path of least resistance and will jump across the spark gap at the firing end of a spark plug from that point on 1221
one electrode which offers the least resistance to a point on the other electrode."

"Even though the electrodes of a spark plug may be presented to each other as parallel planes, the flow of the spark across the gap will be from point to point and not from plane to plane. Microscopically, the said planes are full of numerous peaks, and the spark jumps from a peak on one electrode to a peak on the other."

1222 The Court: All of which is in Baldwin's testimony?

Mr. Hood: Yes, sir.

The Court: All right.

Mr. Hood: (Continuing reading):

"Plaintiff does not manufacture spark plugs whose electrodes have true plane surfaces, nor does plaintiff set them in true parallel planes."

"The electrical current involved in the spark travels at the rate of approximately 186,000 miles a second, and hence shortening of the electrodes does not materially affect the time of delivery of
1223 the spark across the electrodes."

"In practice, some automobile owners discard spark plugs because they are fouled, and not otherwise defective.

"A spark plug may foul in five hundred miles, or less, of operation.

"Some of the common causes of the early fouling of spark plugs are: oil used by the manufacturer to protect the pistons in shipment, improper carbureter setting, improper distributor point setting, oil used in the gasoline, and too much use of the
1224 choke."

"A spark plug can foul without there being any defect in the plug itself. Such a spark plug is capable of further efficient use if properly cleaned."

"There is nothing so unique about a set of spark plugs in a certain automobile which will bar their use in another automobile of the same make and type."

"The plaintiff's spark plugs are generally so interchangeable between the same make and type of car, that if so interchanged they will generally give

the same type of service they have been giving." 1225

"If a set of fouled spark plugs were taken out of one car, reconditioned, and replaced in another car of the same type, model, and make, generally speaking they will give about the same service in the new car as they would if replaced in the former car."

"The plaintiff has and does urge the public to replace its spark plugs after ten thousand miles of use, but in spite of the plaintiff's active propaganda to this effect, the majority of car owners do not follow such a practice."

"Reconditioned spark plugs are used by some owners of fleets of taxis or trucks." 1226

We have one problem here, Judge. I asked them to admit this:

"It is the usual practice of the United States Navy to recondition spark plugs used in its airplanes, except where war time conditions make this inadvisable, and such reconditioned spark plugs are again installed in naval airplanes which are then sent into the air with the plane firing on reconditioned spark plugs."

Then they say:

"Plaintiff neither admits nor denies for the reason that although the United States Navy cleans and services its aviation spark plugs, they reuse only those which are found suitable for further use, after passing the Navy's test." 1227

Now, I would like to put in so much of that as they do admit.

The Court: Will you kindly tell me what possible bearing that has on this controversy?

Mr. Hood: It hasn't very much.

The Court: It has so little that I will ask you both to drop the subject.

1228 WILLIAM K. ANDERSEN, called as a witness on behalf of the Defendants, was first duly sworn and testified as follows:

Direct Examination by Mr. Hood:

Q. Mr. Andersen, what is your occupation? A. Manufacturing spark plugs.

Q. And how long have you been a manufacturer of spark plugs? A. Off and on, since 1903.

The Court: (To witness) Do you use a trade
1229 mark?

The Witness: Yes, I have used a trade mark, K. & A. spark plugs.

The Court: Where is your factory?

The Witness: Bayside, Long Island, now.

The Court: And are you the head of the enterprise?

The Witness: No, I am secretary.

The Court: What is the name of the company?

The Witness: A. L. Duering Spark Plug Corporation.

1230 Q. The Duering spark plugs are the Duering spark plugs mentioned previously as reconditioned by the defendants?

Mr. Schaffer: Does he know?

The Court: Is there more than one Duering spark plug on the market?

The Witness: Yes, sir.

The Court: I mean, manufactured by anybody else?

The Witness: No.

The Court: So far as you know you are the only company that manufactures Duering spark plugs? 1231
The Witness: Duering.

Q. What is the meaning of the term "reconditioned spark plug" in the spark plug industry? A. Reconditioned?
Q. Yes. A. Why, I would say——

The Court: It is not what you would say, what is the generally accepted meaning, if you know.
The Witness: Well, reconditioning a spark plug is to clean it out and put it in good shape, so far 1232
as working is concerned, clean the carbon out of the insulator and so forth.

Q. Have you done reconditioning of spark plugs yourself? A. We have several times, yes.
Q. What is the effect of reconditioning upon the design of the spark plug?

Mr. Schaffer: I object to that.
The Court: You mean on the design of plaintiff's spark plug or any spark plug in general?
Mr. Hood: Any spark plug in general, Judge. 1233
The Court: Objection sustained.

Q. What is the effect of reconditioning upon the firing end of spark plugs, in your experience? A. None whatsoever.

The Court: Isn't that the same question?
Mr. Hood: I don't think so, Judge.
The Court: What is the difference?

1234 Mr. Hood: This witness may testify as to what he has——

The Court: He may testify if he has reconditioned or observed the reconditioning of Champion spark plugs. Then, he may state what he has done and the result.

Q. Have you ever had occasion to recondition or observe the reconditioning of Champion spark plugs? A. No.

The Court: I think that about terminates your testimony, doesn't it?

1235 Q. I show you Defendants' Exhibit K, a new Champion spark plug and I ask you to look at the firing end? A. Yes.

Q. Is there something in a spark plug design that is known generally in the trade as a petticoat? A. There was years ago but not now. This is only a countersinking of the end of it but years ago there was such a thing as a petticoat.

Q. You are referring to some countersinking around the center electrode? A. Yes, the end of the insulator is countersunk..

1236 Q. From your experience in reconditioning plugs, would the reconditioning process—what effect, if any, would the reconditioning process have on that little countersinking?

Mr. Schaffer: I object.

The Court: (To witness) Have you ever reconditioned such a plug as you hold in your hand?

The Witness: Not the Champion, but others just like it.

Q. Have you reconditioned plugs that have such countersinking? A. Yes, sir. 1237

Q. And what was your experience with the effect of reconditioning on the countersinking?

Mr. Schaffer: I object.

The Court: Overruled.

The Witness: There is no effect to it at all, it does not destroy it at all. The little that the sandblasting can take off is so little that you cannot measure it.

Q. In your experience in spark plug manufacturing can you state with reasonable certainty what the function of that countersinking is? A. It is just to make the point a little bit warmer there than elsewhere so that the heat starts there and it is for burning the soot off that accumulates on it—that is all it is for. 1238

Q. If the little countersinking were taken off, what effect, if any, would it have on the spark plug?

Mr. Schaffer: Objected to.

The Court: Sustained.

Q. Are you familiar with the marketing of spark plugs through the various outlets in which they are sold? A. I am some—not an expert, though. 1239

Q. Do you know whether some are sold over the counter in boxes and some are not? A. Yes.

Q. And some are installed in garages without the customer seeing the box? A. That is true.

Mr. Schaffer: Your Honor, I think the witness should testify, and not counsel.

1240 The Court: Not only that but it is in the record now. I don't know why you keep accumulating undisputed things, Mr. Hood.

Mr. Hood: I was going to ask the relative percentage.

The Court: (To witness)? Do you know the relative percentage of counter business as distinguished from service station business?

The Witness: I could not tell you that.

The Court: Of course not.

By Mr. Hood:

1241 Q. Mr. Andersen, from your knowledge and experience are you able to determine the heat range of the Champion spark plug by observation of the firing end of the plug without reference to trade or type markings? A. No; you could if you are experienced. It is just a matter of air space inside.

Q. How close can you come to it—to the correct type, by observation of the firing end?

The Court: The witness' last answer means, yes, ou could not but no, unless you are experienced.

1242 He says that a person who is experienced does not need to look at the style marking and one who is not, does need to look at the style marking.

Q. How close in terms of type markings can you come to the heat range of a plug——

The Court: No, no, how close in terms of heat range can you come.

Q. How close in terms of heat range can you, if experienced, come by an examination of the firing end of a

plug without referring to the type markings on Champion plugs? A. I don't quite understand that question. 1243

The Court: (To witness) How close can you come to the correct heat range?

The Witness: Well, you first must know the motor and next you must know whether it is a cold motor or a hot motor and therefore you determine what the heat range is.

The Court: If you have that information, how close can you come—close enough to put in the right spark plug?

The Witness: I think so, yes. 1244

Q. I wonder if you understand. I am not talking to you with reference to an engine. If you have just a spark plug—how close can you come, if experienced, to estimating the heat range of that plug by just examining the firing end of the plug?

Mr. Schaffer: I object, your Honor, the witness has answered the question.

The Court: I will let him answer, it will save time.

The Witness: The only thing I could tell you is that you go by the spacing that is left inside, that is how close you can get to it, you have a small air space there for the explosive to begin. 1245

Q. One is a hot plug and one is a cold plug, is that right? A. Yes, and medium. There are several in between.

Q. How close can you come to the heat range in terms of hot or cold or medium or in between, by an inspection of the firing end of a plug alone? A. I would not know

1246 what you mean—it is only by looking at it can you say anything?

Q. Only by looking at the type marking. A. Only by looking at the type marking then I could tell whether it is extreme cold or extreme hot.

Mr. Hood: That is all.

Mr. Schaffer: No cross-examination.

(Witness excused.)

ARMEN KASARJIAN, called as a witness on behalf of the
1247 Defendants, was first duly sworn and testified as follows:

Direct Examination by Mr. Hood:

Q. Mr. Kasarjian, what is your occupation? A. I am chief engineer of the Aero Spark Plug Company of New York.

Q. And what is the Aero Spark Plug Company? A. They manufacture spark plugs for aircraft.

Q. How long have you been chief engineer? A. Since 1933.

Q. Have you had any training in schools of technology?
1248 A. I attended the Massachusetts Institute of Technology, from 1908 to 1914.

Q. What experience, if any, did you have with spark plugs and internal combustion engines prior to becoming chief engineer of the Aero Spark Plug Company? A. From 1924 to 1929 I was a Navy expert on ignitions, stationed with the Bureau of Aeronautics, the Naval aircraft factory.

Q. And are you also familiar with automotive spark plugs? A. Yes, I worked for the Mosler Ignition Corporation which manufactured automotive spark plugs. I was their chief engineer from 1929 to 1933.

Q. Will you tell us what, if any, need there is for re- 1249
conditioning spark plugs? A. To get more life out of the plug.

Q. What does the reconditioning of a spark plug mean? A. Reconditioning a spark plug would mean to clean the core of injurious deposits which are conductors and set the gap and determining, by some means, that the insulator is sound.

Q. And that would be a firing test, I suppose? A. Firing test, yes, or the bomb test.

Q. You are familiar with the term "reconditioned spark plug"? A. Yes, sir.

Q. What does the term mean? A. Reconditioning a 1250
spark plug means getting a spark plug that has been used into a good running operating condition.

Q. By the recondition process that you mentioned? A. By that process, yes.

Q. Did you ever have occasion, sometime in the past, to test some of defendants' plugs? A. Yes, I did.

Q. By using this affidavit to refresh your recollection, if you care to, will you please tell his Honor what these tests were and how they were conducted?

Mr. Schaffer: What are you giving the witness, 1251
the affidavit?

Mr. Hood: Yes.

The Court: He made an affidavit in this case?

The Witness: Your Honor, I don't think I need it, I can remember the test now.

There were several sets of reconditioned Champion spark plugs submitted to me with several sets of new Champion plugs and the question was to test them and see if I could find any discrepancy between them or a difference between them, so I had these——

1252 Mr. Owen: Your Honor, I object to this testimony regarding these tests for the reason that they do not relate to anything in controversy here.

Your Honor has ruled on that subject several times.

The Court: I have tried to but apparently without success.

Mr. Hood: These tests were made and I would like the witness to tell what they were.

The Court: All right.

The Witness: I took these reconditioned spark plugs and set the gaps exactly the same as the new
1253 ones. Then I submitted them to a bomb test. A bomb test is a box into which we put compressed carbon dioxide at various pressures, to find out the firing characteristics of the plug. It is also a test for the soundness of the insulator, and I started with fifty pounds pressure first and I kept on going up to, I think, one hundred and fifty pound. Both plugs fired up to the same point. That is, they cut out exactly at the same pressure, that means at the same voltage.

1254 Q. Did you examine the appearance and the measurements of the firing end of these reconditioned plugs in comparison with the new plugs? A. I did.

Q. What, if anything, did you find?

Mr. Schaffer: I object. I don't think there is any basis yet for the question.

The Court: The witness says that he took one repaired and one new one. Now, he is asked if he measured the firing ends of the two and he says, yes, he did measure them.

The Witness: Yes, there was a considerable difference between the two. 1255

Q. What was the nature of the difference? A. The difference was the wear on the reconditioned spark plug, at the electrode.

Q. Did it affect the performance of the plug in any way? A. Not during my test.

Q. What is the meaning of a rebuilt spark plug? A. Well, in the industry rebuilt spark plugs are implied to have one or two of its important parts replaced, such as the core or the shell. Then we say it is a rebuilt spark plug. 1256

Q. And would changing the side electrodes and welding on a new electrode affect the characteristics of a spark plug? A. No, it will not, it has never been known in the history that the ground electrode will affect the heat range of a plug.

Q. Would changing the center electrode in the core affect the characteristics of a plug? A. It might, yes, sir.

Q. What is the reason for the distinction? A. After all, the spark plug designers design a spark plug with the surface heat, that is the surface picking up heat, and surfact which is dissipating heat, and that may be altered, which in turn may alter the heat range of a spark plug. 1257

Q. That is, if the center electrode was changed? A. Absolutely.

Q. The center electrode is fixed in the ceramic core, is it not? A. Yes.

Q. So to change the center electrode, you would have to change the core as well? A. That is right.

Q. Now, will you take these boxes, Plaintiff's Exhibits 1 to 4, and pick out whichever one are representative exhibits, a representative number, and compare the firing

1258 ends with this new Champion plug, marked Defendants' Exhibit K and state to his Honor any difference that you observe?

The Court: Let us get this straight.

(To witness:) Mr. Witness, how many are you going to use from Exhibit 1 for comparison—how many are you going to take out?

The Witness: As many as you want, your Honor.

The Court: Well, you are the one making the comparison. I just want the record to show.

The Witness: Well, let's take out one from each

1259 box.

The Court: The comparison, as I understand it, is with Defendants' Exhibit K?

Mr. Hood: Yes.

The Court: It is stipulated by counsel that these three objects are new Champion spark plugs and that if the defendant, Samuel Sanders, were called to the stand he would testify that he bought these new plugs in a store. Is that right?

Mr. Schaffer: Yes, your Honor, we will so stipulate.

Mr. Hood: Yes, sir.

1260 The Court: Then you offer them in evidence, Mr. Hood?

Mr. Hood: Yes, your Honor, I offer these new plugs in evidence.

(The above plugs received and marked, "Defendants' Exhibit P.")

Mr. Schaffer: May we have the type numbers on those?

Mr. Hood: There are two #7's and one #1 Commercial.

The Court: Now, is the witness to be asked to make a comparison, then, between the four that he has taken from each separate box of Exhibits 1 to 4 and the spark plugs marked Exhibit K and the three constituting Exhibit P, is that it? 1261

Mr. Hood: Yes, Judge.

The Court: I think you ought to do one at a time, Mr. Witness.

Mr. Hood: Then, may we have some type of special markin, for the three plugs just offered in evidence. I suggest that they be marked P-1, P-2 and P-3.

The Court: All right, Exhibits P-1 and P-2 will be the type number 7 and Exhibit P-3 is the type #1 Commercial. 1262

(To witness) Now, you make your comparisons, one at a time.

Q. I call your attention to the fact that in the reconditioned plugs that have been marked and which you are now examining, those plugs have been marked on the hex "A" some number, "B" some number or "C" some number? A. Yes.

Q. Now, when you make your observations to the Court, will you refer specifically to the hex number on the reconditioned plug, please? A. Yes, this seems to be A-3. 1263

Q. And what type of plug is that? A. This is a Champion Midget type plug.

Q. May I suggest that you start off with one of the reconditioned plugs numbered 7 and compare that with a new #7? A. I have one plug here marked A-7.

Q. Is that a type #7? Will you take the plug out of Plaintiff's Exhibits 1, 2, 3 and 4. I think they are all #7 practically. I also hand you a magnifying glass. A. These two plugs that I am holding in my hand——

1264 The Court: What are you using the magnifying glass for?

The Witness: To read the numbers on the hex.

The Court: That is defendants' product, the reconditioned plug?

The Witness: One is and one is a new one.

The Court: On which are you using the glass?

The Witness: I am not using the glass on any of them.

The Court: You started to?

The Witness: I was trying to read this number (indicating).

1265 The Court: Was it on the reconditioned one or on the new one?

The Witness: On the reconditioned plug.

Mr. Schaffer: May we have the hex number, please?

The Witness: B-3.

Q. May I suggest if you find the light inadequate you might adjust yourself with the stenographer's light there? A. The second number looks like B-8.

1266 The Court: Now, we have a spark plug identified as B-8?

The Witness: Yes.

The Court: You are comparing that B-8 with what, please?

The Witness: With a similar plug of the same type, #7 Champion.

The Court: That is a new Champion #7?

The Witness: Yes, sir. Both are #7, the new one as well as the old one.

Mr. Schaffer: I think I can save some time here by pointing out that the witness has a reconditioned

plug, on our chart #7 Commercial, and the new 1267
plug is a #7, which are two different type numbers. I would hate to have this proceed and then bring it out on cross-examination.

Q. Did you find one that is a #7 Commercial? That particular reconditioned plug counsel says is a #7 commercial? A. That may have some special designation that they know. It has not the word "commercial" written on there.

Mr. Schaffer: The position is that the plug number on the hex is B-3—B-3 is a #7 plug. 1268

The Court: Then it was not B-8, it was B-3, is that it?

Mr. Schaffer: That's right.

Q. Now, will you tell his Honor what, if any, differences you observe in the firing end?

The Court: Is he comparing #B-3 with a new #7?

Mr. Hood: That's right.

The Witness: There seems to be very little difference between the two of them, your Honor. If 1269
I have to go for the details, I think that the reconditioned spark plug has a center electrode a little smaller in length than the new one.

The Court: That means it is shorter?

The Witness: Shorter, and the method of attaching the ground electrode seems to be different.

The Court: You mean the ground electrode is welded on the side?

The Witness: Yes.

1270 The Court: And that is not true in the other one?

The Witness: They are both welded but one is welded differently than the other one.

Q. Will you state whether or not anything that you observe there indicates that the two plugs have a different heat range?

Mr. Schaffer: I object to that.

Mr. Hood: They testified on that, Judge.

The Court: I will allow the witness to say whether
1271 he can determine whether there is a difference in heat range by such an inspection that he can make.

The Witness: I would say that there would be none.

Q. Did you see anything in such an inspection to ascertain whether there was any material change in the spark position in the cylinder? A. Not in an appreciable amount, no.

Q. Do you see any changes there at all that would affect the functioning of the reconditioned plug as compared with the new plug?

1272

Mr. Schaffer: I object to that.

The Court: Overruled.

The Witness: No, sir.

Q. What is the physical effect of reconditioning that you have spoken about upon used spark plugs?

Mr. Schaffer: I object to that question, your Honor.

The Court: Well, I think that counsel wants to get a certain volume of this testimony in evidence. I have tried to show him it is not material but this is his case. 1273

Q. (Question repeated.) A. I would say the reconditioning, if it is done properly, will not affect this spark plug's performance in any way at all provided that they have gone through the test which I specified before.

Q. Will you examine another of these #7's that you care to look at and see if you can see any material or essential changes?

1274

The Court: No.

Q. Will you look at the reconditioned plugs——

The Court: Compare something with something else and state any differences observed.

Q. Will you examine those #7 reconditioned plugs, in turn stating for the record the hex number on each plug and state what, if any, differences you see between those plugs and the new #7?

1275

Mr. Owen: Will the witness state which plug he is examining?

The Witness: This one is a B-4, it is a #7 plug.

The Court: Continue, please.

The Witness: The same difference as to the other used plug, from the new plug, and these two reconditioned plugs are alike. I had one out, a B-2 which has no ground electrode and which has no shell electrode.

1276 Mr. Hood: That is the one that they took it off for analysis, your Honor.

The Court: I suppose that is not a fair element of comparison. That can be discarded so far as this witness' testimony is concerned.

Mr. Schaffer: Yes, your Honor.

The Witness: This third one is a B-1. That also is a reconditioned plug similar to the other reconditioned plugs, a #7 type.

The Court: How about the difference?

The Witness: The same difference exists between the reconditioned plugs that I have thus far exam-

1277 ined and the new one. They seem to be quite uniform.

This one that I am examining now is a B-7. In this plug there is a little difference between the ends of the porcelain.

Q. Is that a #7 or a. #7 commercial?

The Court: B-7, he says.

The Witness: B-7—I don't see any commercial on here.

1278 The Court: That means the firing end of the porcelain insulator, one side compared with the other?

The Witness: Yes, one is a little different than the other.

The Court: That is one is shorter than the other?

The Witness: That's right.

The Court: Are there also the other differences that you referred to with reference to the others?

The Witness: That's right.

The Court: So that we have an additional difference in this one?

The Witness: That's right.

Q. Now, in this particular one, Mr. Kasarjian, did you 1279
see anything that would affect the heat range of the plug? A. I don't think so.

Q. Did you see anything there that would materially affect the spark position in the cylinder in comparison with the new plug? A. No, I would not say so.

Q. Did you see anything there that would materially affect the functioning in the same engine in comparison with a new plug? A. Provided they have been designed for the same range, there would be no difference.

Q. Will you take some out of the #C box, now? A. There is no box C, it is #3.

Q. I am sorry, you are quite right. A. This plug that 1280
I am examining is marked—I cannot discern the first letter but the second seems to be "8".

Q. Is it possible that it is a C? A. C-8, possibly, yes.

The Court: And you are comparing that with what?

The Witness: The same type, #7.

The Court: Is there any difference?

The Witness: And this one says Champion #7 Ford.

The Court: Do you observe any difference be- 1281
tween the C-8 and the new plug?

The Witness: The same difference I have noted before, the center electrode is shorter.

Q. And would the same comment apply as to the heat range and the spark position and the functioning of the plug? A. I would say so.

Q. Will you proceed. A. Now, I am examining C-3. This one seems to look exactly as the new except the ground electrode welding method. The center electrode seems to be about the same length.

1282 Q. And the same observation applies as to heat range, spark position and functioning? A. It does.

Q. Proceed, please. A. This one is C-4. Will you check that, please. (Handing plug to Mr. Schaffer.)

Mr. Schaffer: That is correct.

Mr. Hood: Now, your Honor, I have no desire, unless your Honor wishes it, to have him examine all of those plugs.

The Court: He is your witness, not mine.

(To witness): What do you say about C-4?

The Witness: The same differences from the
1283 new plug as before noted. Those reconditioned plugs seem to be quite uniform.

Q. And would the same observation apply as to the heat range, spark position and functioning? A. Yes, sir.

Q. Now, I ask you to look at Plaintiff's Exhibit 18 which purports to be a drawing of certain of these plugs, reconditioned plugs, in comparison with a new plug of the same type and I ask you to look at these drawings and assuming for this purpose that the drawing is correct, state whether or not the reconditioned plugs exhibit any material changes that would affect the heat range, the
1284 spark position or other functioning of the plug?

Mr. Schaffer: I am sorry, your Honor, but I will have to object to that question.

The Court: I will allow it. I have ruled on that so many times.

Mr. Hood: I am sorry, your Honor, I am not quite clear on that but I will ask this witness any question you want me to.

The Court: You go ahead with your examination. 1285

The Witness: There is a slight change or difference between the used plugs and new plug.

The end of the center electrodes which in the case of the new plugs is sharp cut and in the case of the reconditioned plugs it is rounded.

The shell of the electrodes seem to have been attached differently than the new one. There has been some taken off the extreme end of the porcelain of the reconditioned plug, presumably by sandblasting.

The Court: Well, at least, it could have been by sandblasting? 1286

The Witness: That is right.

The Court: I suppose it also could have been through use?

The Witness: It might have been.

Q. Now, tell me——

The Court: Just a minute.

(To witness): Are there any other differences that you wish to say you see there?

The Witness: No, your Honor, I do not see any other difference. 1287

Q. Now, will you state what the effect upon the plug is, assuming the drawings to be correct, of the changes which you observed?

Mr. Schaffer: I object, your Honor.

The Court: I am satisfied that this gentleman is an expert and that he is qualified to express an opinion. Objection overruled.

1288 Q. (Question repeated.) A. I would say, your Honor, that the differences would not be appreciable in performance.

The Court: I will state for the benefit of plaintiff's counsel that where I have allowed that question to be answered I have not changed my opinion that it is incompetent and has no bearing on the issues in this case.

Mr. Schaffer: We have taken the position from the outset, your Honor, that reconditioned spark plugs are not on trial in this court.

1289 The Court: Exactly. This witness might say that reconditioned plugs are better than new ones. That has nothing to do with the issues at all.

The Witness: Some reconditioned spark plugs may be better than new ones.

Q. Now, I would like to know, Mr. Kasarjian, in your opinion, assuming the drawings to be correct, do the changes that you observe there represent changes in any material elements of design in the new plug?

Mr. Schaffer: I object.

1290 The Court: I will make the same ruling and the some observation. It does not make any difference, in my judgment, whether these are essential elements in every part of plaintiff's product. Whether the plaintiff is wise in turning out that product in the form it does is not before this Court and it is not open to the defendant to argue the point.

Q. (Question repeated.) A. No essential elements of design, no.

Mr. Hood: I would like the witness, before passing on, to examine these plugs with a glass and compare them with the drawings of the plugs that he has been referring to. 1291

The Witness: Those plugs that I have examined are in the same category as this.

The Court: I think the question is does that drawing faithfully portray the differences that you observed in these used plugs?

The Witness: Except one, they do.

The Court: One, you say, does not?

The Witness? It is a little different in respect to the extreme end of the porcelain. 1292

The Court: You mean the drawings do not adequately show the change?

The Witness: No, the drawing is a little more extreme than the samples I have seen, so far as the end of the porcelain is concerned.

Q. Will you designate which plug that is? A. #C-7.

The Witness: (Examining drawing) I beg your pardon, your Honor, I take it back—they are truly representative.

1293

Q. I show you Defendant's Exhibit P-2, a new Champion #7 spark plug and direct your attention to the little countersinking around the center electrode? A. Yes, sir.

Q. And I ask you what, if any, material function that little countersinking has? A. Well, if I were designing a plug, I would design it that way also myself. My first consideration for that design would be to eliminate the sharp edges of the ceramic in order to safeguard against incandescent ceramic edges which cause preignition—sharp edges are objectionable.

1294 The Court: Is that the only reason?

The Witness: That may be and plus—possibly it has been made to increase the ceramic exposure without decreasing the length of the center electrode.

The Court: Would you say that is its function in part?

The Witness: It may be.

Q. Will you tell us whether or not that countersinking tends to disappear in use or does it always remain there the same? A. I have not seen enough reconditioned plugs
1295 to answer that question but, however, either way I don't think it will make much difference.

Q. Would the wearing away of that countersinking affect the functioning of the plug? A. I don't believe so. May I add something to that answer?

The Court: Surely.

The Witness: Theoretically it will change slightly, of course, the heat range of the plug but that change is in proportion to the amount that was taken out and to the entire ceramic exposure length, which is very negligible in comparison.

1296

Q. That, I suppose, is the reason for your opinion that in the use of reconditioned plugs, that is that countersinking removed in whole or in part, has still the same heat range? A. The same heat range, the difference would be negligible to the proportion that I explained to you.

Mr. Hood: I now ask that Defendants' Exhibit L be remarked as L-1, L-2 and L-3, so that I may examine the witness about the plugs separately.

The Court: All right. 1297

(Defendants' Exhibit L remarked, "Defendants' Exhibits L-1, L-2 and L-3.")

The Court: Now, what is this for?

Mr. Hood: It is a question of which set of plugs is representative as an output of the defendant.

The Court: Well, you have testimony in the record that 15 to 20% of defendants' output consists of plugs to which there has been welded a new side electrode. I am not too sure of my figures but I think it means that between eight and eighty-five per cent. of defendants' product is differently constituted. I think that appears and I don't know 1298 what you are going to add to that.

Q. In your opinion, from the examination that you have made of the reconditioned spark plugs, is the reconditioning work done properly or improperly?

Mr. Schaffer: I object to that question.

The Court: And what has the pending answer to that question to do with reference to the issues in this case?

Mr. Hood: If the reconditioning has been properly done it does not affect the spark plugs. 1299

The Court: Has anybody said that it has except that the spark plugs are of different dimensions, sometimes in respect to the insulator and sometimes in respect to the center electrode? In other words, I don't think anybody has criticized the repair work done by the defendant as repair work. Is that so or isn't it so?

Mr. Schaffer: For the purposes of this case, that is so.

Mr. Hood: Then, I am finished with this witness.

1300 *Cross-Examination by Mr. Schaffer:*

Q. Mr. Kasarjian, you have examined a new Champion #7 spark plug, is that correct? A. That's right.

Q. I now hand you Defendants' Exhibit P-2. What is the projection of the center wire on that plug? A. What is the projection?

Q. Of the center wire? A. In respect to its length?

The Court: Measuring the projection.

Q. Do you know it? A. I can guess at it.

1301

The Court: Can you measure it?

The Witness: I can measure it, yes.

Mr. Schaffer: I am merely asking for his knowledge.

The Witness: Within certain ranges, I can tell you but not exactly, if you are asking me a technical question.

Q. I am asking you a technical question. A. I would say this is slightly over one-eighth of an inch, possibly three-sixteenths.

1302 Q. Do you know the dimensions and specifications of the new Champion spark plugs? A. I do not.

Q. So when you were comparing defendants' product with the new plug, you were using visual observation? A. Visual observation.

Q. That is correct, isn't it? A. Of course.

Q. You did that unaided by any magnifying glass? That is correct, too, isn't it? A. Yes.

Q. I hand you a spark plug which you have previously identified as B-3, one of the defendants' products, which you examined? A. Yes.

Q. Will you tell me the condition of the center wire in 1303
that plug? A. Yes, sir, it is rounded at the edge and it is shorter.

Q. Rounded and shorter? A. Yes.

Q. Would you know the cause of that? A. I presume sandblasting or use.

The Court: (To witness) By "shorter", what do you mean?

The Witness: A shorter exposure from the ceramic up.

The Court: Than what?

The Witness: Than the new one. 1304

Q. Can you tell the projection of the center wire from the end of the shell? You are familiar with that dimension, I take it.

The Court: Do you mean in the new or in the present?

Mr. Schaffer: In the present.

The Witness: This is about even with the end of the shell.

Q. You say that your estimate of the projection of the 1305
new plug is about one-eighth of an inch? A. One-eighth of an inch.

Q. That is the same dimension— A. My figure of the projection is beyond the center electrode, from the ceramic—because I know the projection away from the shell does not make much difference.

Q. You are measuring the projection from the end of the core? A. From the end of the porcelain, out. I took no relationship with the end of the shell.

1306 Q. But your comparison, I understand, is still the
130 same, comparing the B-3 plug with the new plug, the center wire is shorter and rounded? A. That is correct.

The Court: Is there any difference between the core and the insulator?

The Witness: No, the core is the center electrode and the insulator together—that is called the core.

The Court: You said the projection beyond the core.

The Witness: I mean, the porcelain, your Honor.

1307 Q. How about the dimension of the B-3 plug from the
13 core to the end of the shell? Would you say that has been shortened? A. I believe very slightly it has been.

Q. And are you familiar with the term "petticoat"? A. I learned a new one.

Q. The part that your counsel referred to as petticoat? A. Petticoat—it is that countersinking, yes.

Q. Do you find that present? A. The petticoat is a little shorter, too, a little shallower.

Q. As a matter of fact, it has disappeared?- A. Not altogether, but even if it did, it wouldn't make much difference so far as the performance of the plug is con-
1308 cerned.

The Court: (To witness) Does that mean that you think the petticoat is a useless thing?

The Witness: It is in the same proportion, as I said, what you take off is to the proportion of the entire porcelain exposure, from the gasket out—that's the difference.

The Court: If you were the plaintiff would you make a plug without this so-called petticoat?

The Witness: I have made plugs without any petticoat at all. 1309

The Court: But if you were the plaintiff in this case, would you make a plug without it?

The Witness: I certainly would, except for one reason, I would want to eliminate the sharp edges.

The Court: Then, that means you would not—you would keep it?

The Witness: I would keep it to the extent of eliminating the sharp edges.

Q. Do you know whether the manufacturers of Auto-Lite and AC spark plugs also have this petticoat on the insulator? A. That I cannot answer now, I don't remember. 1310

Q. As a matter of fact, you don't manufacture automotive spark plugs? A. We don't now but we did.

Q. And how long has it been since you made automotive spark plugs? A. 1933.

Q. And now you manufacture airplane spark plugs? A. Yes, sir.

Q. And they are a different type of plug? A. The requirements of airplane spark plugs are much more exacting than an automobile spark plug.

Q. You use a mica insulator? A. We use mica and ceramic. 1311

Q. I show you the B-4 spark plug, which you have previously identified. Will you please tell us what you found in the condition of the center wire in that plug? A. It has been shortened and rounded at the edge. That is all of the difference that I can find.

Q. Have you measured the gap in that plug? A. No, I have not measured it.

Q. And what do you find with respect to the condition of the end of the insulator, the ceramic portion? A. The

1312 skirt end, possibly, has been a little more rounded than the new one.

Q. Mr. Kasarjian, is it customary to examine and diagnose spark plugs without the use of any instrument? A. It depends on what you are going to diagnose, what you want to find out, what you are trying to find out. That is what determines the instrument or the apparatus that is required, to do it. If I wanted to scratch something I would not use a razor.

Q. Do you consider this examination you are making of these plugs in court a scientific examination upon which you can give us an opinion? A. It is on my background
1313 and education and experience that I am telling you my frank opinion and I don't mind telling you that I have a set of Champion spark plugs in my car today where the center electrode that you are worrying about——

Q. Just a minute——

The Court: You appreciate that a voluntary statement does not help us.

The Witness: Yes, of course, your Honor but we are splitting hairs here, your Honor.

Q. Without referring in detail to all of the additional
1314 plugs that you examined, your comparison remains the same, that the spark plugs comprising the ones reconditioned by the defendants, which you examined, are substantially like the ones which you now have just testified about? A. Is this the one you mean? (Indicating.)

Q. I mean that, sir, plus the additional ones you examined on the stand this afternoon. A. Yes, they are of the same category, the same breed of cattle.

Q. Have you tested plugs put out by the defendants, originally made by Champion? A. Yes, sir.

Q. And where did you secure those plugs? A. They 1315
were given to me by Mr. Sanders.

Q. How many were given to you? A. I would say about a dozen or more.

Q. When was this test made? A. Now, I will have to ask you—don't ask me to depend on my memory because I haven't a good one. It was quite some time ago.

Q. Would you say seven or eight years ago? A. No, possibly I would say five years ago.

Q. Was it made prior to the time that you testified in the Federal Trade Commission proceeding? A. Yes.

Q. I have a record here which gives the date of Octo- 1316
ber 2, 1939 as the date of your testimony in the Federal Trade Commission case—would that refresh your recollection? A. Yes, possibly six months or possibly a year before.

Q. Would you say that anyone of defendants' plugs which you have examined is about as good as another one of them, would you say that they ran about the same? A. Those that I tested, they were all alike.

Q. What tests did you perform? A. First, I saw to it that the gaps were absolutely correct within the thousandths.

Secondly, I put them into the bomb test and began to 1317
increase the pressure of the bomb—I used carbon dioxide in the bomb and magneto was used as a spark generator and I increased the pressure until the gap was quenched, that is, the spark was quenched and in all cases, new as well as old, they all fired about the same.

Q. There was no heat involved in this test? A. No.

Q. That is a cold test? A. Yes, that is what they call a bench test.

Q. And CO_2, carbon dioxide, is an inert gas? A. Yes.

1318 Q. And this test is to determine whether or not the plugs, the electricity is passing between the gap? A. That test is particularly to find out whether the insulator, the ceramic, is sound or not.

Q. That is the value of that test? A. That is the value of that test.

Q. You say you made sure that the gaps in those plugs were all of exact dimensions—do you consider that important? A. No, but in this test it was to find out, putting the same electrical pressure on both insulators, I wanted to be accurate and that naturally may make a difference in your pressure, how far you can fire.

1319 Q. Ordinarily would you say that the gap setting is not important? A. To a certain degree it is.

Q. To what degree? A. In aircraft, within three thousandths degree.

Q. And automotive? A. Automotive—well, you gentlemen yourselves, you specify different gaps for different plugs but the gaps burn quite readily and we keep on running the same engine with the same plug for a long long time and the gap varies quite a bit but evidently it doesn't make any difference within that variation, which may be quite a few thousandths.

1320 Q. How much do the gaps burn? A. Of course, depending on the engine conditions, the fuel and the use, service in use, considering everything else equal and ideal, I would say possibly you would have these burned in about twenty-five hours driving to about a thousandths.

The Court: A thousandths of an inch.

The Witness: A thousandths of an inch.

The Court: That is the gap would be increased, then, by a thousandths of an inch?

The Witness: I am guessing at that from aircraft spark plugs because I know that it does burn one-thousandths in ten hours. 1321

Q. And how many thousandths variation can you have and still have a spark plug operating? A. If your spark generator is strong enough to fire the gap, the wider the gap the better the ignition. The Bureau of Standards has proven, through exhaustive experiments, that that is so. The maximum gap is determined by the spark generator.

Q. How about the conditions found in a passenger automobile? A. They have variable ignition.

Q. Tell me, how much widening of the gap—by how many thousandths— A. I have plugs myself that have forty-five thousandths gap—that is, in my own car. Then I took them out for reconditioning. 1322

Q. You mean you took them out to clean them? A. For cleaning purposes. When I cleaned them I measured them.

Q. Do I understand your testimony correctly that the porcelain insulator of the Champion plug is worn away through use? A. That I would not know, possibly. What I mean to say is, in use there is a cleaning process included in it. I do not think in actual engine use that it would wear out. 1323

Q. There would be no wearing in the engine? A. It would be so infinitesimal that you could not measure it.

Q. Any erosion found on the insulator comes from the cleaning or sandblasting, is that correct? A. It comes from cleaning, scraping or sandblasting, yes.

* * * * *

Q. How do you determine the heat range of a Champion spark plug? A. How do I determine it?

Q. Yes. A. The designer determines it, I don't.

1324 The Court: Do you mean, how does he ascertain what it is?

Q. How do you ascertain what it is? A. The heat range, from a designer's standpoint, is determined by the heat absorbing area and the heat carrying area, the proportion between those two determines the heat range of a plug. That is, if you have a heat absorbing area larger than the heat carrying area, you will have a hot plug, but if you have a heat absorbing area less than the heat carrying area, you have a cold plug. That is the way we design all plugs.

1325 Q. That is affected both by the projection of the center wire and the shape of the insulator? A. To a very small extent but the real difference comes in in the porcelain exposure, from the gasket seat out, that determines it the most.

Q. And when that is altered, the heat range is altered? A. The heat range may change to that proportion. It depends on how much is altered.

The Court: From the gasket out, do you mean from the gasket to the firing end?

1326 The Witness: From the gasket to the firing end. The gasket seat is the place where they take the heat out.

That answer of mine is theoretical, of course.

Mr. Schaffer: That is all.

Re-direct Examination by Mr. Hood:

Q. Will you look at Plaintiff's Exhibit 15A which purports to be the specifications for a new number 7 plug and see whether or not that causes you to change any of your testimony?

Mr. Schaffer: If the Court pleases, we must ob- 1327
ject to that as not proper re-direct examination.

Mr. Hood: The question was asked on cross-examination, it was a question which reflected on his ability to judge the new #7. He was asked if he knew anything about the specifications of new #7 plug. I show him the specification and I ask him if it causes him to change his opinion or observation.

The Witness: In respect to the heat range, you mean, sir?

Q. In respect to anything that you see there? A. As I 1328
said, theoretically, shortening the ceramic exposure will change the heat range but it is to such a small amount that it is not appreciable.

There are so many things in the car that affect the performance of the plug that this becomes negligible. It is theoretically correct that it cools the plug to the proportion that it is taken off but that is a very small amount, one percent. of ten per cent., what is it?

Q. Do I understand, then, that a removal of a portion of the ceramic by the use of reconditioning will cool the plug in proportion to the percentage of the removed area 1329
to the total area of the ceramic? A. The total exposed area of the ceramic.

Q. Not the volume but the surface? A. The surface.

Q. Do I understand your testimony to be that external conditions, such as leanness of the mixture and so forth, would affect the heat range of a plug more than that particular shortening? A. Absolutely.

Q. Is it possible by any inspection or test to determine whether or not any changes that you observed in the

1330 defendants' reconditioned plugs that you examined were made by the defendants' reconditioning process or by some previous reconditioning operation?

Mr. Schaffer: I object to that.

The Court: Isn't it obvious that he must say that he could not tell that?

Mr. Hood: That is what I think.

The Court: Well, why ask a question to which there is but one possible answer?

1331 Q. What is the state of the relations of your concern with the Champion Spark Plug Company at the present time? A. Very friendly.

Mr. Hood: That is all.

Re-cross Examination by Mr. Schaffer:

Q. Mr. Kasarjian, would you hold your manufacturing standards or would you permit your manufacturing standards for new spark plugs to vary to the extent of the difference that you found in the plugs put out by the defendant and the new plugs manufactured by the plaintiff?

1332

Mr. Hood: I object to that question as incompetent and I object on the further ground that it is not material to the issues in the case.

The Court: He said, effect upon the functioning of the plug in his judgment was unimportant.

The Witness: That is true; they do change but they don't change the performance of the car.

The Court: And you can conceive that another man might disagree with you?

The Witness: Absolutely, but if they knew their business, they would not. 1333

Mr. Schaffer: That is all.

(Witness excused.)

Mr. Hood: The defendants rest, your Honor.

Mr. Owen: I wish to show the date when the Exhibits 1, 2, 3 and 4 were purchased from the defendant.

I believe counsel will agree that they were purchased on November 12th, the 15th and the 18th, 1943. Will you agree to those dates, subject to correction?

Mr. Hood: Yes.

Mr. Owen: In the affidavit, when your Honor suggested the use of the "Ex-Champion" on defendant's plug, we 1334
offered a copy of our Champion X trade mark, which I would like to offer at this time.

The Court: That is the letter "X" and not the prefix "ex"?

Mr. Owen: That's right.

The Court: You have the right to offer it, of course.

Mr. Owen: I offer it now as a plaintiff's exhibit.

(The above copy of trade mark received and marked, "Plaintiff's Exhibit 29.")

The Court: What is the date of that, please?

Mr. Ward: December 5, 1922, and the number is 1335
158402.

The Court: Are you offering that to prove any use of the trade mark?

Mr. Owen: Yes, your Honor, I am going to follow that up now.

Will there be any objection to this on the ground that it is not a certified copy?

Mr. Hood: No.

Mr. Owen: I offer now as the next plaintiff's exhibit a red container of a Champion spark plug which is

1336 marked on the end with the trade mark Champion and a picture of the world and the language or wording "½ long X bore A 25 plug."

I also offer one of the plugs and the individual carton for that plug, which is a Champion X plug.

The Court: Now, in connection with that, do you offer any testimony to show that there was current selling under that trade mark by the plaintiff as of May, 1944?

Mr. Owen: I offer to make the statement and I do not believe it will be denied, that in the *Reich* case there was a detailed figure as to the number of Champion X plugs that were sold, up to 1930 and 1931. That is as far as
1337 that record went.

The Court: That won't do me any good as to 1944. I want to know if there was current manufacture and sale under that trade mark.

Mr. Hood: Apparently there is not.

Mr. Owen: These spark plugs were purchased in New York yesterday (indicating). It is our A-25 plug, Champion X for Ford.

The Court: I don't question that they manufacture. I simply want to know whether it is current.

Mr. Owen: Absolutely.

The Court: You say that is so. Now, does the defend-
1338 ant question it?

Mr. Hood: What cars use it?

Mr. Owen: It was on the old Model T Ford. I think, however, that many millions of those Champion X plugs have been sold and used by motorists and I think that has something to do with our rights to that mark, even though the selling of those plugs, particular plugs has fallen off and is not large today.

The Court: Would you feel the same if I said to you that behind your back there has been done something in

pantomime that would indicate these plugs were used with 1339
the old Model T Fords of which there are comparatively few in circulation today.

I cannot believe that they would be very seriously affected if the defendant were required to continue to use the prefix "ex." I do not say that I am going to do that but I do not think there would be any irrefutable damage to the Champion's X plug if that were so.

Now, is it agreed that what we have informally discussed in the record may be taken as a fact with reference to this trade mark and its use?

Mr. Hood: That's right, your Honor.

Mr. Owen: Now, on the question of laches, I would 1340
like to read into the record the date when the suit against Emener was started.

The bill of complaint was filed on January 9, 1933. The decision is reported in 16 Fed. Supp. 816—I don't know the exact date of the decision but it was in 1936, I am quite sure.

The Court: The suit was filed when?

Mr. Owen: January 9, 1933, filed in the United States District Court for the Eastern District of Michigan.

A suit in Kansas City by the plaintiff against a man by the name of Reich was filed May 2, 1938 and the deci- 1341
sion of the District Court on the preliminary injunction, ordering a preliminary injunction, was given on September 24, 1938 and was reported in 24 Fed. Supp. 945.

The decision of the Eighth Circuit Court of Appeals reversing the District Court in some respects was rendered on July 23, 1941 and is reported at 121 Fed. (2d) 769 and certiorari was denied the defendant on October 20, 1941, reported in 314 U. S. 669.

Now, that is all we have except some stipulations with reference to four affidavits which I would like to have

1342 filed. I don't want to stop to read them. I would like to
1 have them filed with the understanding that either party may refer to them and quote from them.

The Court: Affidavits of whom, please?

Mr. Owen: Stipulations with respect to the testimony of P. L. Edwards.

The Court: What does "P" stand for, is it man or a woman?

Mr. Owen: It is a man. I do not know his name, that is the way he signs his name. Also a stipulation with reference to the testimony of one Leo Kemper, and W. E. Sanders, whose first initial or name I don't know, and
1343 the affidavit of myself, Wilber Owen, filed in connection with the motion for a preliminary injunction; and in connection with the Edwards' affidavit, we wish to file a copy of the bill of sale from the defendant Reich in that Kansas City case as the Automotive Products Company—he assigned that business on November 15, 1941 to Standard Parts, Incorporated, and a copy of that bill of sale is attached to Edwards' affidavit as Exhibit A thereof and those I would like to file, referring to them as though it were part of the testimony in the case.

The Court: They are already filed but you want them
1344 incorporated in the case, is that it?

Mr. Owen: Yes, your Honor.

STIPULATION RE TESTIMONY OF WILBER OWEN.

* * * * *

It is stipulated that if Wilber Owen were called and sworn as a witness for plaintiff he would testify as follows:

I am one of the attorneys for plaintiff in this cause and also was attorney for plaintiff in the case of *Cham-*

pion Spark Plug Company v. *J. F. Reich*, which suit was 1345
filed in the United States District Court at Kansas City in 1938. During the pendency of that case defendant Reich carried on his spark plug reconditioning business at 3031-3033 North Main Street, Kansas City, Missouri, under the name Automotive Products Company.

On November 15, 1941, following the filing of the opinion of the Eighth Circuit Court of Appeals in the *Reich* case (reported in 121 F. [2d] 769), decree on mandate and order of reference for an accounting of profits and damages were entered in the District Court. In the course of the proceedings before the Master the defend- 1346
ant Reich testified that his business which had been conducted under the name Automotive Products Company had been transferred to a Kansas Corporation which was incorporated on or about November 15, 1941, but he did not give the name of the new company.

I have examined a copy of a bill of sale which was executed by J. F. Reich on November 15, 1941, whereby he transferred to Standard Parts, Inc., a corporation of Kansas, the business formerly conducted by him "at 3033 Main Street, in Kansas City, Jackson County, Missouri, for the repair and resale of spark plugs, consisting of the plant, stock on hand and in process of manufacture 1347
and repair, raw material, machinery, equipment, tools and apparatus of every description, together with the property, rights and credit and the good will of said business, all as shown by the books of the Automotive Products Company as of the 15th day of November, 1941."

* * * * *

Since November 15, 1941, and down to the present time I have from time to time seen and examined advertising literature put out by Standard Parts or Standard Parts Company, 3033 Main Street, Kansas City, Missouri,

1348 relating to rebuilt or renewed spark plugs. Some examples of that literature are attached to the reply affidavit of Charles L. Corwin in this case, *e. g.*, "Corwin's Exhibit B and "Corwin's Exhibit D".

Following the hearing in this case on plaintiff's motion for preliminary injunction on May 24, 1944, I telephoned my associate in the *Reich* case, Mr. P. L. Edwards, 1322 Commerce Building, Kansas City, Missouri, and requested him to ascertain whether Reich or his successor in business is still repairing or reconditioning used and discarded Champion spark plugs and if so to secure and send me a box of them. I did not return to my office in
1349 Toledo until Monday, May 29, 1944, and then found on my desk a box of ten repaired Champion spark plugs which had been received by my firm from Kansas City, Missouri, the latter part of last week. The trade-mark and type-mark had been removed from these plugs and the metal parts had been bronzed. Each of these plugs was packed in a carton bearing the name and address "McFall Engineering Co., 3031 Main St. Kansas City, Mo." One of these cartons is attached hereto and marked Owen Exhibit 1. The container in which these ten plugs were packed is attached hereto and marked Owen Ex-
1350 hibit 2. On the inside cover of this container there is printed:

> "These repaired spark plugs are genuine plugs, originally manufactured by the Champion Spark Plug Co., but owing to new Federal ruling can not be sold by their original name and number. See chart for our numbers in comparison with the numbers of other manufacturers."

This is exactly the same wording as appears on the inside cover of containers in which Standard Parts, Inc.,

and Standard Parts have packed ten repaired Champion 1351
plugs for sale to the dealer and garage trade, and the reading matter on the outside of said exhibit container and cartons is in substance the same as that used on the containers and cartons of Standard Parts, Inc., and Standard Parts, which I have seen and examined, except for the name "McFall Engineering Company."

One of the ten plugs which my firm received from Kansas City last week is attached hereto and tagged "Owen Exhibit 3". The container in which these ten plugs were received by my firm also contained a printed sheet entitled "Passenger Car Chart", which is attached hereto 1352
and marked "Corwin Exhibit E".

CORWIN EXHIBIT B.

STANDARD PARTS
3033 Main St. Kansas City, Missouri

Effective on shipments made after October 20, 1942

We Pay 3½¢ each for Any size of old used spark plugs.

We Pay all freight charges if billed as "Junk Iron, 4th Class Rate".

1353

AC, Champion and Auto-Lite are the *only* makes purchased.

Porcelains must be unbroken, and steel shells not too badly rust-pitted.

Pack *only* 50 lbs. or less, in any *one* sack, box or can.

If you ship less than 100 lbs. we charge back the excess freight charges.

Never ship via Express or Parcel Post.

Corwin Exhibit B.

There is one type of old obsolete AC which has the name and number in *Green*. The only AC we buy has the name and number in *Blue*. The type we can use has *numbers* such as 45, 46, 84, 76, etc. The old obsolete useless plugs all have a letter in front of the number such as K-9, K-11, H19, G19, etc.

Pay no attention to condition of the small electrode, (the small short bent wire.)

Prices subject to change without notice. We also reserve the right to refuse any shipment on its arrival.

Our check and count of the repairable plugs is final. Payment made immediately after plugs are checked and counted.

We expect the terminal nut and copper gaskets with each plug. To make up for those missing, remove them from your broken and "off-brand" plugs, and put them in a separate container. It is not necessary to remove them from the plugs you ship.

Watch for cracks in the porcelain insulators, especially up inside the lower end.

Corwin Exhibit D

"STANDARD" BRAND

Rebuilt Spark Plugs

The Answer to Shortage of NEW Plugs

ACTUAL FINISH!
All metal parts
Bronze plated

10,000 MILE GUARANTEE

World's Best and Largest Selling Rebuilt!

DISTRIBUTOR'S PRICES
F.O.B. KANSAS CITY, MO.
TERMS: C.O.D. or 2% 10 DAYS. 30 DAYS NET

REBUILTS ORIGINALLY MADE BY THE A-C & CHAMPION SPARK PLUG CO.'s	13c each
REBUILTS ORIGINALLY MADE BY THE AUTOLITE SPARK PLUG CO.	12c each

DEALER PRICE 19c RESELLS for 33c

- All metal parts bronze plated
- Worn shell electrodes replaced
- All parts checked and repaired
- 10 plugs individually packaged to a box

3033 Main Street **STANDARD PARTS** Kansas City, Mo.

CORWIN EXHIBIT D. 453

CORWIN EXHIBIT E.

PASSENGER CAR CHART

Auburn—'34-'36, 6 and 8 cyl. Al. Hd. 14
'34 8 cyl. Cast Iron Hd. 34
'35-'36 Sprchgd. 14
12 cyl., all models 21
Buick—'41 10 mm. heads. 3
'38-'42 14 mm. heads ... 13
Cadillac—'29 thru '30 ... 21
1931 thru 1935 24
'36 thru '38 8 cyl. 13
'36-'37 12 and 16 cyl. ... 24
'38 thru '39 16 cyl. 13
1939-'42 3
Chevrolet—6 cyl. thru '31 21
1932 24
1933 thru 1940 13
1941-'42 3
Chrysler—1930 thru '31 .. 21
1931 DeLuxe 8 13
'32 thru '39 reg. hds. .. 13
1940-'42 reg. heads 12
All H.C. Alum. heads .. 14
De Soto—6 & 8 thru '31 .. 24
'32 thru '39 reg. hds. ... 13
'40-'42 reg. heads 12
All H.C. Alum. heads .. 14
Dodge—'29 6, '30 and '31 6 and 8 24
'32 thru '39 reg. hds. ... 13
'40-'42 reg. heads 12
All H.C. Alum. heads ... 14
Essex—Six thru '31 21
1932 24
After '32 (See Terraplanes)
Ford—'33 Model 40 24
85 H.P. Models 40, 48, 68, 78 ('34 thru '37) .. 24
85 H.P. Mdl. '38 thru '40 14
60 H.P. models 14
6 cyl. models 15
1941 ..... 14 or 15
1942 15
Graham—8's thru '31 ... 21
'33 Mdls., 34, 6 and 8 Sprchgd. '36 Mdl. 6-80, '37, 85 Ser. ... 24
'36 Mdls. 6-90, 6-110, '37, 95 Ser. and Mdls. 116 and 120 Sprchgd. ... 14
1938 thru 1939 14
1940 thru 1941 16
Hudson—Thru 1931 21
1932 thru 1933 24
1933 Super Six 12
1934 thru 1942 12
All H.C. heads 14
Hupmobile—'28 thru '36 .. 21
1938 thru 1941 24
La Salle—'29 thru '31 ... 21
1932 thru 1934 24
1935 thru 1938 13
1939 thru 1940 3
Lincoln—'34 thru '39 ... 24
1940 14
1941-'42 15
Lincoln Zephyr — Thru '40 14
1941-'42 15
Mercury (Ford) thru '40 14
1941-'42 15
Nash—'34 Six, 1220, 3520, 3580 13
3510, 3640, 3710, Laf. "400" 24
870, 970, 1070, 1130, 1170 24
880, 980, 1080, early 960, 870, 1280, 3620, 3680 .. 13
1937 thru 1939 13
1940-'42 12
Oldsmobile—'28 thru '31 .. 21
1932 thru 1936 24
1937 thru 1939 13
1940-'42 12
Packard—Hi. Head 24
After June, '31 thru '32 .. 13
1933 thru 1936 13
1937 thru 1939 3
1940-'42 3
Pierce-Arrow—12 thru '35 13
1936 thru 1938 14
Plymouth—'29 thru '31. 24
1932 thru '39 reg. hds. 13
1940-'42 reg. hds. 12
All H.C. Alum. hds. 14
Pontiac—'30 thru '31 ... 24
1932 13
1933 thru 1939 13
1940-'42 12
Reo—After '27, Reg. hds. 21
'1935 Alum. hds. 24
1936 14
Studebaker—1933 thru 1940 24
1941 Champion 13
1941 Com. and Pres. ... 24
1942 12
Hi. hds. after '32 24
Terraplanes— 13
All Alum. Hi. hds. 14
Willys—4, 6 and 8 cyl. .. 24
'40-'42 Reg. hds. 12
All Hi. Comp. hds. 14
Zephyr—Thru 1940 14
1941-'42 15

COMPARISON CHART

Chart No.	Size	Heat Range	A C	Autolite	Champion
3	10 mm.	Normal	LR7604(104)		
12	14-mm.	Hot	LR1605(46)	LR1615(A7)	LR1620(J-9)
13	"	Normal	LR1606(45)	LR1615(A7)	LR1621(J-8)
14	"	Cold	LR1607(44)	LR1615(A7)	LR1622(H-10)
15	"	Cold		LR1615(A7)	LR1623(H-9Com.)
21	18 mm.	Hot			LR1624(C-7)
24	"	Normal			LR1625(7)

Above numbers cover 85% of cars made since 1933. The ½" and ⅞" sizes and other sizes or types for cars not shown are available in new plugs only.

Corwin Exhibit E

STIPULATION RE TESTIMONY OF P. L. EDWARDS. 1363

It is hereby stipulated by the parties hereto, acting by their respective counsel, that if P. L. Edwards were called and sworn as a witness in this cause, he would testify as follows:

That he is a practicing attorney in Kansas City, Jackson County, Missouri, and that he has lived in Kansas City, Jackson County, Missouri, since 1928; that he is well acquainted with J. F. Reich and that he knows of his own knowledge that prior to November, 1941, J. F. Reich was engaged in the business of reconditioning, repairing and reselling used spark plugs and was conducting said business as Automotive Products Company; that on November 15, 1941 said J. F. Reich, doing business as Automotive Products Company, transferred by bill of sale all of the assets of his business to The Standard Parts, Inc., a corporation; that a copy of said bill of sale as recorded in Book 242 at page 392 in the Recorder of Deeds Office in Jackson County, Missouri, marked Exhibit A, *infra;* that he further knows of his personal knowledge that J. F. Reich conducted his business prior to the 15th day of November, 1941 at 3031-3 Main Street, Kansas City, Jackson County, Missouri, and that The Standard Parts, Inc., a corporation, conducted its business subsequent to the 15th day of November, 1941, at the same address. 1364 1365

That he instructed one W. E. Sanders on May 25, 1944, to purchase a carton of reconditioned Champion Spark Plugs at the Western Auto Supply Company located at 444 Ward Parkway, Kansas City, Missouri; that said Sanders purchased said carton of said reconditioned Champion Spark Plugs at said Western Auto Supply Company and immediately turned them over to affiant; that affiant then mailed them direct to Wilber Owen of Toledo, Ohio, in the same condition as they were in when purchased from said Western Auto Supply Company.

* * * * *

Exhibit "A".

1366 EXHIBIT "A"

(Copy)

Book 242, page 392

BILL OF SALE

KNOW ALL MEN BY THESE PRESENTS: That I, J. F. Reich, of Kansas City, Jackson County, Missouri, in consideration of the delivery to me of 444 shares of capital stock of The Standard Parts, Inc., a corporation, duly organized under the laws of the State of Kansas, the receipt whereof is hereby acknowledged, do hereby sell, assign,
1367 transfer and deliver unto the said The Standard Parts, Inc., a corporation, its successors, and assigns, the business now conducted by me at 3033 Main Street, in Kansas City, Jackson County, Missouri, for the repair and resale of spark plugs, consisting of the plant, stock on hand and in process of manufacture and repair, raw material, machinery, equipment, tools and apparatus of every description, together with all property, rights and credit and the good will of said business, all as shown by the books of the Automotive Products Company as of the 15th day of November, 1941.

1368 The said The Standard Parts, Inc., a corporation, hereby assumes and agrees to pay the liabilities of said Automotive Products Company in the amount of $1635.78 and in addition thereto the past due salaries of Louis C. Reich and L. E. Reich in the amount of $1411.85 and $3363.79 respectively, all as shown by the books of the Automotive Products Company as of the 15th day of November, 1941, and no other indebtedness or liabilities whatsoever.

IN WITNESS WHEREOF I, the said J. F. Reich hereunto set my hand and seal this 15th day of November, 1941.

(S) J. F. REICH

STATE OF MISSOURI }
COUNTY OF JACKSON } 1369

Before me the undersigned, a notary public in and for said county and state, came J. F. Reich, personally known to me to be the person who executed the above and foregoing bill of sale, and being by me first duly sworn acknowledged the execution of the same as his free act and deed.

IN WITNESS WHEREOF, I hereunto set my hand and official seal the day and year last above written.

1370

(S) RUTH V. EKSTON
Notary Public.

My commission expires January 24, 1944.

* * * * *

STIPULATION RE TESTIMONY OF LEO KEMPER.

It is hereby stipulated by the parties hereto, acting by their respective counsel, that if Leo Kemper were called and sworn as a witness in this cause, he would testify as follows:

1371

That he is Manager of a garage located in Kansas City, Jackson County, Missouri, known as the Brookside Garage; that on Thursday, May 25, 1944, he contacted a person at 3031-3 Main Street, Kansas City, Missouri, and inquired as to whether they had for sale reconditioned Champion spark plugs, size J-4; that he was asked as to how many of said plugs he desired and that he replied that he would buy one hundred; that he was then told that they did not sell their reconditioned Champion spark plugs in such small quantities and that he could purchase

1372 them in Kansas City, Missouri, in small quantities from the Western Auto Supply Company, and that in the event he was unable to purchase said plugs from the Western Auto Supply Company they would sell him such amount as he desired.

* * * * *

STIPULATION RE TESTIMONY OF W. E. SANDERS.

It is hereby stipulated by the parties hereto, acting by their respective counsel, that if W. E. Sanders were called and sworn as a witness in this cause, he would testify as follows:

1373

That he is a resident and citizen of Kansas City, Jackson County, Missouri, and that he is the owner of a gasoline filling station located at Ward Parkway and Wornall Road in said city; that on Thursday, May 25th, 1944, he purchased at the Western Auto Supply Company located at 444 Ward Parkway, Kansas City, Missouri, a box of reconditioned Champion Spark Plugs and that on the inside cover of said box there is the following printing:

> "These repaired spark plugs are genuine plugs, originally manufactured by the Champion Spark
1374 Plug Co., but owing to new Federal ruling cannot be sold by their original name and number. See chart for our numbers in comparison with the numbers of other manufacturers."

that the name of the reconditioner of said plugs appears upon the top of the box as "McFall Engineering Co." with its address given as "3031 Main Street, Kansas City, Mo."

* * * * *

The Court: Now, does that close the case? 1375

Mr. Owen: The plaintiff rests.

Mr. Hood: The defendants rest and move to dismiss the complaint as to the defendant, Peter Sanders, on the ground that there is no evidence that as of the time of the institution of this action he was connected in any way with the Perfect Recondition Spark Plug Company or engaged in any way in reconditioning plaintiff's plugs and upon the further ground that the plaintiff has failed to prove the cause of action as alleged and defendants move to dismiss the complaint as to the other two defendants—

The Court: Let us separate the motions. Do you oppose the motion as to Peter Sanders, Mr. Owen? 1376

Mr. Owen: We do, your Honor.

The Court: What evidence is there to connect him with the defendant's enterprise?

Mr. Owen: The evidence that he was a partner in the enterprise up until the first part of 1944 and these spark plugs were purchased in November, 1943, and there is evidence that he still has an interest in the business in the way of indebtedness. The boys say that they bought the business but haven't paid for it. He owns the building in which the business is conducted and I submit that we are entitled to an injunction against Peter Sanders just the same as we have a right against the other defendants, and we are also, in my opinion, entitled to an accounting against Peter Sanders for a time, for the time that he was interested in the business even though he may have nominally transferred his business when the suit was filed. 1377

The Court: I will reserve decision on that motion.

Mr. Hood: Defendants now move to dismiss the complaint as to the other two defendants, upon the ground

1378 that the plaintiff has failed to prove a cause of action as set forth in the complaint as to such defendants.

The Court: Does that state the motion in its entirety?

Mr. Hood: Yes, sir, I think so.

Mr. Owen: That motion is opposed, your Honor.

The Court: I will reserve decision, gentlemen. Please exchange briefs by May 2nd, and you can decide at that time whether or not you want oral argument. If you do, please inform me of that decisionand we will say, argument and submission of briefs by May 7th.

1379

1380

Plaintiff's Exhibit 8.

1381

Report No. F-668
Date December 19, 1944
From Dr. W. R. Foster

Subject: Further Experiments on the Removal of the Overglaze Decoration from H-10 Insulators by the Use of 1:1:2 HF-HCl-H_2O Mixture.

Purpose:

To determine the minimum time required for removal of the overglaze decoration, and the character of the glazed surface after removal. 1382

Summary:

A treatment time of 10 seconds is sufficient to remove completely the overglaze decoration, and 5 seconds will remove the decoration sufficiently well as to render the lettering unrecognizable to the naked eye. The effect on the glaze is almost imperceptible and appears to be so slight as to impair in no way the proper functioning of the insulators.

1383

Remarks:

The treatment involved painting the decorated area continuously for either five or ten seconds, as the case may be, holding under running water, and rubbing vigorously with a piece of cloth. The latter action carries off the decoration loosened but incompletely removed by the acid application and the water wash.

The effect on the glaze is seen only under medium or high power and careful illumination such that the reflected band of light parallel to the length of the insulator is

1384 perpendicular to the incident beam. Under such conditions extremely tiny separated superficial etch-marks are seen on the glaze. It is these that cause the slightly decreased luster. They could in no way interfere with the proper performance of the insulators, for the glaze has not been pierced. The effect is too slight, also to constitute any significant hazard in the accumulation of deposits on the insulator.

WRF:AE

1385 Report No. F-666
Date December 19, 1944
From D. W. R. Foster

Subject: Investigation of the Effect of 1:1:2 Mixture of 50% Hydrofluoric Acid—Concentrated Hydrochloric Acid—Water on the Glaze of H-10 Insulators during the Process of Removing the Overglaze Decoration.

Purpose:

1386 To determine if any injurious effect on the glaze is caused by the use of this acid mixture for the removal of the overglaze decoration.

Summary:

During 30 seconds exposure to the acid no visible effect has been produced on the glaze. But with the binoculars (magnification of x 10.5, x 21, and x 30) especially with the higher powers, a barely perceptible decrease in the brilliance of the reflectance of the glazed surface can

be discerned. This suggests incipient but very superficial and slight attack on the glaze, without in any way penetrating the latter. As noted by report F-550, the areas previously occupied by the letters of the overglaze decoration are less lustrous than the surrounding glaze. This is interpreted as an effect due mainly to the interaction of the overglaze decoration with the glaze during passage through the decorating kiln. 1387

Remarks:

One each of an unused and used H-10 Champion Spark Plug (the latter forwarded by the Toledo Engineering Department) were treated with cold 1:1:2 HF-HCl-H_2O mixture for 30 seconds, by "painting" the decoration with the liquid (by means of a small camel hair brush), continuously for practically the entire 30 seconds, washing thoroughly with cold water and drying. The treatment removes the decoration even before the water-wash. 1388

WRF:AE

Report No. F-550
Dated July 1, 1944
From Dr. W. R. Foster 1389

Subject: Study of the Effect of HF-HCl Water Water Mixtures on the glazed Surfaces of C-7 and Y-9 Insulators during Removal of the Overglaze Decoration (Trade Mark and Type Mark).

Purpose:

To determine if acid treatment for the removal of the decoration produces any injurious effect on the glaze.

Plaintiff's Exhibit 8.

1390 *Summary*:

It is concluded that the acid mixture used in removing the decoration is unable, in the short time in which it is allowed to act, to produce any injurious effects on the glaze.

Remarks:

After removal of the decoration the outlines of the letters are still barely visible with a hand lens or low power (10x) binocular microscope. The areas occupied by the letters are a trifle less lustrous than the surrounding
1391 glaze. But since this surrounding glaze shows no such effect, despite its equal exposure to the acid, it is concluded that the acid produces no detectible effect during the short time in which the glaze is exposed to its action. The observed dulling of luster might rather be due to interaction of the glaze and the overglaze at the time of application (firing stage) of the latter. If such is the case, the acid causes no injurious effect, but simply uncovers "damage" already done. But, regardless of how it is accomplished, this almost imperceptible effect on the surface of the glaze appears to be far too slight to cause any injurious results in the proper functioning of the in-
1392 sulator.

The preparation of the acid mixtures and the removal of the overglaze were performed by Mr. Rautenberg. The dulling of the glaze appeared to be slightly more pronounced on the Y-9 than on the C-7 insulator. The mixture used was that of equal parts of 50% hydrofluoric acid, concentrated hydrochloric acid and water.

WRF:AE

Plaintiff's Exhibit 13.

1393

Form 473

J-4
J-5
Y-6

NOTICE

THE SPARK GAP ON THIS PLUG IS .037 FOR CHEVROLET.

For use in all other engines reset gap to manufacturer's specifications.

CHAMPION SPARK PLUG CO.

1394

Plaintiff's Exhibit 13a.

Form 474

J-8
J-9

NOTICE

The gap on this spark plug is ..... .025
Reset gap for Chevrolet to ..... .039
Reset gap for Hudson to ..... .032
Reset gap for Willys to ..... .030
Reset gap for Oldsmobile 6 to ..... .039 1395
Reset gap for Oldsmobile 8 to ..... .030

CHAMPION SPARK PLUG CO.

Plaintiff's Exhibit 13b.

1396

Form 408 C-4
C-4-X

NOTICE

The spark gap on this spark plug is set at .025 inch. When used for Ford Models A or B open the spark gap to .033 inch.

CHAMPION SPARK PLUG CO.

1397

Plaintiff's Exhibit 13c.

Form 543 Y-4-A

NOTICE

The gap on this spark plug is .028
Reset gap for Chevrolet ..... .039

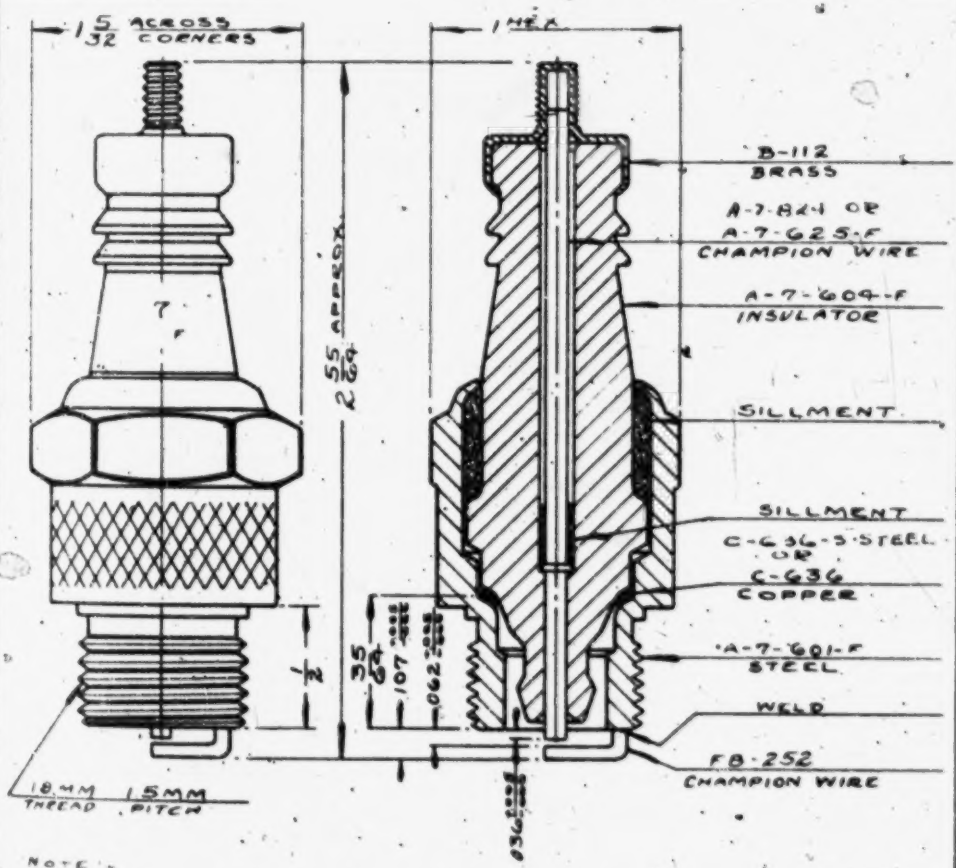
CHAMPION SPARK PLUG CO.

1398

PLAINTIFF'S EXHIBIT 15A.

CHAMPION SPARK PLUG CO.

TOLEDO, OHIO — WINDSOR, ONT.



NOTE:-
SIDE WIRE AND CENTER WIRE FLUSH ±.010

7 F

CHANGES	
DATE	DESCRIPTION
12-18-41	A-7-824 - ADDED
7-10-42	C-636S - ADDED

A.7.64.F

DRAWN BY	CHECKED	SCALE	DATE
M.J.N	B.H.	2"=1"	5-25-37

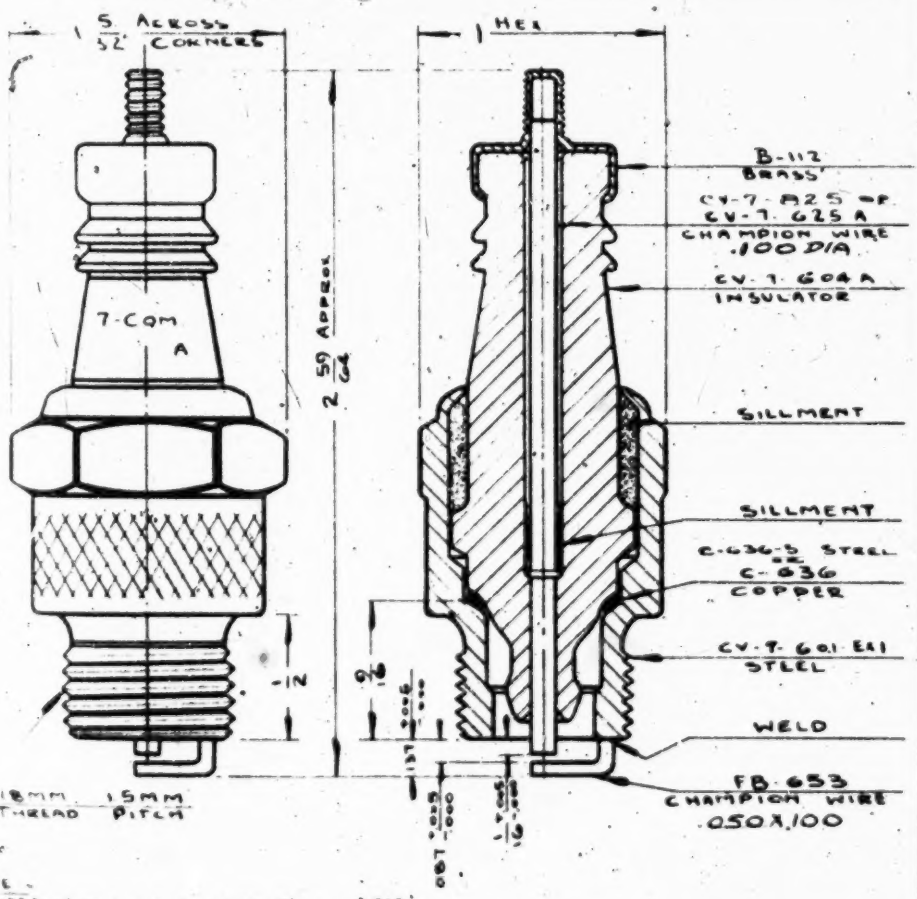
15A

PLAINTIFF'S EXHIBIT 21.

Ex. 21

CHAMPION SPARK PLUG CO.

WINDSOR, ONT.



NOTE - CENTER WIRE AND SIDE WIRE FLUSH ±.010 .000

7.COM.A

DATE	CHANGED DESCRIPTION
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]
[illegible]	[illegible]

CV.7.64.A

DRAWN BY	CHECKED	SCALE	DATE
[illegible]	[illegible]	2:1	4-27-37

21

Plaintiff's Exhibit 22.

1405

September 23, 1936

M. C. Dewitt

The Perfect Recondition Spark Plug Co.
1133 Bedford Avenue
Brooklyn, New York

Attention of Mr. Sam Sanders

Dear Sirs:

A decree and injunction have been entered by the 1406
United States District Court at Detroit which are of vital interest to all reconditioners of spark plugs. Several years ago we brought suit against Jack Emener, a reconditioner in Detroit. The case was referred to a Special Master in Chancery to take testimony and report his findings of fact and conclusions of law. After taking a large amount of testimony he reported his findings of fact and conclusions of law to the court, which have been approved and confirmed by the Court.

Although it appeared that Emener made no misrepresentations in the sale of his reconditioned plugs to dealers and garages, and there was no evidence to show that 1407
he authorized or approved of acts of deception by his customers, it did appear that these reconditioned plugs were being sold to the motoring public, without explanation, when new plugs were called for and that in some instances they were represented to be new plugs.

The Master and the Court held that defendant was responsible for these acts of misrepresentation and deception by his customers and required him to take a number of precautions against the repetition of such acts. Paragraph 17 of the Master's report is as follows:

1408 "Although it does not appear that the defendant deceives, or intends to deceive or injure, any one, it is plain from the record, and I find, that not only the actual result, but also the natural and ordinary result, of his acts and practices here involved is to permit and assist his customers to deceive the public to the injury of the plaintiff, by selling spark plugs, originally made by the plaintiff but partly worn out by use and reconditioned by the defendant, under representations or circumstances reasonably calculated to lead the average purchaser to believe that such plugs are new Champion plugs and, in some instances by express misrepresentations to that effect."

1409

The Master and the Court held, as a matter of law, that because of defendant's acts he was guilty of infringing the Champion trade-marks and of unfair competition in trade. Paragraph 4 of the decree of the Court is as follows:

"That defendant, Jack Emener, his agents, attorneys, salesmen, workmen, employees, servants, privies and confederates, and each of them, be perpetually enjoined from selling or offering for sale or delivering to others for sale any spark plug, spark plug core or spark plug porcelain of plaintiff's original manufacture, which has been used and thereafter has been reconditioned or treated in any manner by defendant or others to give it the appearance of newness, unless and until (a) all trade-marks, trade-names, style marks, size marks and/or brand marks have been completely removed therefrom, as by sandblasting or as by the use of

1410

acid or otherwise; (b) the metal shell and bushing 1411
nut have been completely covered by permanent red paint or lacquer, such as Duco or Dulux or otherwise; and (c) the word 'Used', all in capital letters, has been indented in one face of the hex portion of the metal shell of said plug, in a size not smaller than twelve-point type, *i. e.*, six lines to an inch when set without spaces between the lines, provided, however, that if any spark plugs shall be made so small that the face of the hex shall not be large enough to receive the word 'Used' in the above prescribed size, than the size of the type may be
reduced sufficiently to enable the word to be 1412
stamped into the hex of such plug, but in no case shall the type be of less size than above prescribed unless the size of the plug shall render such lesser size necessary, such indentation shall in all cases be to a depth sufficient to enable such indentations to retain enough white paint to distinctly display each letter of said word in white when the surplus white paint has been wiped from said surface, and the letters of the word 'Used' have been filled with a heavy white paint, so as to leave each letter of
the word 'Used' fully and distinctly visible in 1413
white on the red background previously placed thereon, as required by clause (b) hereof. Should plaintiff change the method of applying its trademarks, so that the same are no longer readily removable by sandblasting or by acid or otherwise, defendant may apply to this Court for a modification of the provisions of clause (a) of this paragraph, so as to enable him to permanently and completely obliterate plaintiff's marks from the plugs by covering them with a heavy lacquer, such as Duco or Dulux or otherwise."

Plaintiff's Exhibit 22.

We have been informed that you are engaged in the business of reconditioning and selling used spark plugs, including Champions, and hereby notify you that unless you promptly adopt and follow precautions against deception of the public such as were imposed by the court in the *Emener* case, we will instruct our attorneys to file suit against you similar to the suit against Emener.

While we reserve the right to deal with each case individually, according to the circumstances, it will be our general policy to waive claims or demands with respect to past acts in cases where we receive from reconditioners assurance that in the future they will observe the terms of the injunction in the *Emener* case. May we hear from you promptly as to your intentions?

Yours very truly,

CHAMPION SPARK PLUG COMPANY

Vice President

MCD MVE
Reg. Mail

Plaintiff's Exhibit 23.

1417

November 20, 1936

M. C. Dewitt

The Perfect Recondition Spark Plug Co.
1133 Bedford Avenue
Brooklyn, New York

Attention of Mr. Sam Sanders

Dear Sirs:

1418 We have not had a reply to our letter of September 23rd, in which we called your attention to a decree and injunction entered by the United States District Court at Detroit, that are of vital interest to all those engaged in the sale of reconditioned spark plugs.

While we would like to infer from the absence of a letter, which was requested from you defining your future procedure, that you have adopted and are following precautions against deception of the public such as were imposed by the Court in the *Emener* case, it will become necessary to place this matter in the hands of our attorneys unless we do receive definite assurance within ten days from the date of this letter, that you intend to observe the terms of the injunction as stipulated in the *Emener* case. 1419

Your very prompt attention to this matter is requested.

Yours very truly,

CHAMPION SPARK PLUG CO.

Vice President

MCD MVE

Plaintiff's Exhibit 24.

1420

BArclay 7-0868
0869

LOUIS J. LEFKOWITZ
COUNSELOR AT LAW
270 Broadway, New York

December 1st, 1936

Champion Spark Plug Co.
Toledo, Ohio

1421 *Attention of Mr. M. C. Dewitt*

Gentlemen:

Your recent letter addressed to the Perfect Recondition Spark Plug Co. has been referred to me for reply.

I am writing to advise you that my client informs me that since he has been in business, he at no time deceived the public into believing that they are purchasing new spark plugs. My client's business consists of cleaning spark plugs for fleet owners, and also selling used spark plugs. Everything connected with my client's business, such as bills, stationery, business cards, signs in front of
1422 his store, etc., bear the word "reconditioned", and at no time has any impression been given to the public, express or implied, that they were purchasing new spark plugs.

My client assures me that he will, in the future, continue, as in the past, that is, not to misrepresent or deceive the public in any way.

Yours very truly,

LOUIS J. LEFKOWITZ
LOUIS J. LEFKOWITZ

LJL/f

Plaintiff's Exhibit 25.

1423

December 12, 1936

Louis J. Lefkowitz, Esq.,
270 Broadway,
New York, N. Y.

Dear Sir:

Your letter of December 1st to Champion Spark Plug Company has been referred to us. It appears from your letter that Perfect Reconditioned Spark Plug Company is conducting precisely the same kind of business that was conducted by Jack Emener, against whom an injunction has been entered by the United States District Court in Detroit.

1424

The injunction in the *Emener* case provides, in substance, that Emener shall not sell or offer for sale any spark plugs of plaintiff's original manufacture, which have been used and reconditioned, unless the Champion trade-mark and brand marks have been completely removed, the metal portions (shell and bushing) have been painted or lacquered red, and the word 'Used' has been stamped into the metal of one side of the hex and the indentations filled with white paint.

1425

The court found in the *Emener* case that the precautions prescribed therein were necessary in order to prevent the sale to the motoring public of used and reconditioned Champion spark plugs as and for new plugs. The court further found that the reconditioner who sells reconditioned Champion plugs to dealers and garage men is responsible for acts of unfair competition committed by them through the sale of those plugs to the public without informing them that the same are reconditioned plugs.

The continued sale of reconditioned Champion spark

plugs by your client will render it liable to suit for injunction unless the plugs are treated as required by the decree and injunction in the *Emener* case, and while our client does not desire to multiply law suits, it is its intention to pursue reconditioners who refuse to adopt the precautions prescribed by the court in the *Emener* case as necessary for the protection of the public.

May we hear from you at an early date stating your client's intentions?

Yours very truly,

OWEN & OWEN,

By .....

WO.D.

(Copy sent Champion Co.)

Plaintiff's Exhibit 26.

September 21, 1937

Louis J. Lefkowitz, Esq.,
270 Broadway,
New York, N. Y.

Dear Sir:

On December 12 last we wrote you regarding the activities of Perfect Reconditioned Spark Plug Company in the sale of reconditioned Champion spark plugs. We received no reply to our letter and have been informed that your client is continuing its operations.

The purpose of this letter is to again call the matter to your attention and to inform you that unless we re-

Plaintiff's Exhibit 26.

ceive assurance that your client will observe the conditions laid down in the decision of the United States District Court in Detroit in the case of *Champion Spark Plug Company* v. *Jack Emener*, we will institute similar proceedings against your client. 1429

For your information, the *Emener* case is reported at page 816 of Volume 16 of the Federal Supplement and at page 152 of Volume 32 of the United States Patents Quarterly.

The ownership of trade-marks as separate and distinct from the ownership of goods bearing such marks, which distinction was the basis for the decision in the *Emener* case, has recently been affirmed by the Supreme Court in *Old Dearborn Distributing Company* v. *Seagram Distillers Corp.*, 57 Supreme Court Reporter 139, and in *Pep Boys, Manny, Moe & Jack of California* v. *Pyroil Sales Co., Inc.*, 57 Supreme Court Reporter 147. 1430

Unless we hear from you promptly, we will take your silence to mean that your client intends to disregard our request and will act accordingly.

Yours very truly,

OWEN & OWEN,

By .....

1431

WO.D.

Plaintiff's Exhibit 27.

1432

Copy to Mr. Wilbur Owen
Owen & Owen, Nicholas Bldg., Toledo, Ohio

September 28, 1937

M. C. Dewitt

Perfect Reconditioned Spark Plug Company
1133 Bedford Avenue
Brooklyn, New York

1433 Dear Sirs:

We have received advice from our attorneys that they have addressed a letter under date of September 21, 1937, to your attorney, Louis J. Lefkowitz, Esq., regarding your activities in the sale of reconditioned Champion Spark Plugs. In case your attorney has not apprised you of this letter, we suggest that you ask him for a copy and confer with him promptly to the end that we or our attorneys may be notified of your intentions.

Yours very truly,

1434 CHAMPION SPARK PLUG CO.

Vice President

MCD MVE

Plaintiff's Exhibit 28.

1435

(4)

August 24, 1943

Peter Sander, Sam Sander and
Harry Sander, doing business as
Perfect Reconditioning Spark
Plug Co., and also as Hygrade
Spark Plug Service,
1137 Bedford Avenue,
Brooklyn, New York.

Dear Sirs: 1436

We are enclosing herewith printed copy of the opinion of the United States Circuit Court of Appeals for the Eighth Circuit in the case of *Champion Spark Plug Company* v. *J. F. Reich,* doing business as Automotive Products Company; also printed copies of perpetual injunction issued by District Judge Albert L. Reeves and of the final judgment entered by Judge Reeves in that case in the sum of $22,329.96 plus costs amounting to over $1,200.00.

The injunction is based on the decision of the Court of Appeals and enjoins Reich, and others associated with him in any way in this business, from selling or offering for 1437
sale or delivering to others for sale, any used spark plug of Champion's original manufacture which has been reconditioned, repaired or otherwise treated to improve its appearance or usefulness, *without first removing plaintiff's trade-mark and type-mark therefrom;* or from selling or offering for sale any such plug in cartons or containers on which plaintiffs' trade-mark Champion or any of its type marks are stamped, printed or otherwise displayed.

We are reliably informed that you are selling used spark plugs originally manufactured by Champion Spark

Plaintiff's Exhibit 28.

1438 Plug Company which have been reconditioned, repaired or otherwise treated to improve their appearance or usefulness and which bear the original Champion trade-mark and type-marks; also that you are marking the cartons and containers in which such plugs are packed with the Champion trade-mark and type-mark.

We have been instructed by Champion Spark Plug Company to notify you of your infringement of its rights and to request that in your future sales of used spark plugs of Champion's original manufacture you observe the conditions of the injunction entered against Reich in the above mentioned case.

1439 In case you do not comply with this request we have been further instructed to institute suit against you for injunction and an accounting of profits and damages. Unless we receive your prompt assurance that you will comply with this request, we will understand that you intend to continue your present practices and will proceed accordingly.

Yours very truly,

OWEN & OWEN,

By .....

1440 WO. D.

Plaintiff's Exhibit 28.

Registered Mail 1441
Return Receipt Requested
Enc.

(Attached to Exhibit 28)

RETURN RECEIPT

Received from the Postmaster the Registered or Insured Article, the original number of which appears on the face of this Card.

1 X 1442
(Signature or name of addressee)
X H. Sanders
(Signature of addressee's agent—Agent should enter addressee's name on line One above)

Dated of delivery 8/26, 1943
POST OFFICE DEPARTMENT
Official Business

Penalty for private use to avoid payment of postage, $300
Postmark of delivering 1443
office

Return to (name of sender) Owen & Owen
Street and Number, or Post Office Box, 1602 Nicholas Bldg Toledo, Ohio.

Registered Article No. 7714

Stamped on face:—Brooklyn, N. Y. Sta. B, Aug. 26, 1943, 2—PM.

Plaintiff's Exhibit 29.

1444 Registered Sept. 5, 1922 T. M. 158,402

UNITED STATES PATENT OFFICE.

CHAMPION SPARK PLUG COMPANY, OF TOLEDO, OHIO.

TRADE-MARK FOR SPARK PLUGS AND PARTS THEREOF.

ACT OF FEBRUARY 20, 1905.

Application filed March 20, 1922. Serial No. 160,924.

CHAMPION

X

1445 STATEMENT.

To all whom it may concern:

Be it known that the Champion Spark Plug Company, a corporation duly organized and existing under the laws of the State of Delaware, and located in the city of Toledo, county of Lucas, in the State of Ohio, and doing business at Avondale and Upton Avenues, in said city, has adopted and used the trade-mark shown in the accompanying drawing, for spark plugs and parts thereof, in Class 21, Electrical apparatus, machines, and supplies.

The trade-mark has been continuously used in the busi-
1446 ness of said corporation since January, 1911, and applicant is the owner of the following United States registrations: 92,950, dated August 12, 1913; 107,050, dated November 9, 1915; 120,167, dated January 15, 1818; 120,950, dated March 19, 1918; 122,132, dated July 2, 1918.

The trade-mark is usually applied to the goods by burning or stamping the same in the porcelains thereof and is also stamped or printed on the packages or cartons containing the goods.

CHAMPION SPARK PLUG COMPANY,

By FRANK D. STRANAHAN,
Treasurer.

DEFENDANTS' EXHIBIT A.

CHAMPION SPARK PLUG

PASSENGER CAR RECOMMENDATIONS

Model Year	'36	'37	'38	'39	'40	'41	'42
CORD	H10	H10	H10				
DE-SOTO	Reg. Hds. J8			J9	J9	J9	
	Alum. HI. Hds. H10						
DOD-GE	Reg. Hds. J8			J9	J9	J9	
	Alum. HI. Hds. H10						
DUES-'BERG	6M	6M	6M	6M			
FORD	Models A, B,'32-V8, C4						
85 hp 18mm	7	7	7				
85 hp 14mm		H10	H10	H10	H10	H8 Com	H8 Com
60 hp		H10	H10	H10	H10		
6 cyl.						H8 Com	H8 Com
FRAN-KLIN	C7	C7					
GRA-HAM	7	7	H10				
	Supercharged & 95 Ser. H10			H10	J10 Com	J10 Com	
HUD-SON	All Reg. Hds. J9						
	All HI. Hds. H10						
HUP-'BILE	C7		7	7	7	7	
*Chevrolet, for fouling condition.						Y-8	Y-8

Model Year	'36	'37	'38	'39	'40	'41	'42
OVER-LAND				J8			
PACK-ARD	J8	Y4	Y4	Y4	Y4A	Y4A	Y4A
PIERCE AR'W	H10	H10	H10				
PLY-M'TH	Reg. Hds. J8			J9	J9	J9	J9
	Alum. HI. Hds. H10						
PONT-IAC	J8	J8	J8	J8	J9	J9	J9
REO	H10						
STUDE-BAKER	All Models 6 Com.-6Z				Alum. J8		J9
STUTZ	6M	6M	6M	6M			
TERRA-PLANE	Reg. Hds. J8 HI Hds. H10						
WIL-LYS6&8	C7	C7	C7	C7	N.Ser.H10	J9	J9
WIL-LYS-KN'T.	Big 6, 66 Series, C4 Light 6, 6						
ZEP-HYR	H10	H10	H10	H10	H10	H8 Com	H8 Com

SUBSTITUTION OF TYPES

Rid your stock of discontinued

1942 Types	Numbers Substitute
J5	N, N1, N2, AN1, J5C
J8	N, J7
6	C1 (for all Knight Motors)
1 Com.	CO, 1, Tr. Sp., 2 Com.
C4	3X, 3, 4, C4X
15	C15, 15 Sp.
H10	J6
0 Com.	00 Com., 0
C7	8, 9, 10, 11
6 Com.-6Z	16, 17, B2, B3, 19, 195
6M	18
3 Com.	H1, 35 Com.
9 Com.	H2, 10 Com.
DL-8	40
D-8	41, 42 (B-E), 42 (B-4)

Inspect Spark Plugs Every 2000 Miles. Reset Gaps and Recondition the Insulator for Maximum Efficiency and Service.

RESET ALL GAPS .025 EXCEPT BELOW

Model	Gap Setting
Buick after 1937	.030
Chevrolet thru 1936	.033
Chevrolet after 1936	.039
Ford A & B Models	.033
Hudson after 1937	.030
Hupp after 1937	.020
Oldsmobile 1936, 6 cyl.	.033
After 1936, 6 cyl.	.039
After 1935, 8 cyl.	.030
Packard after 1930	.030
Willys after 1929	.030

TORQUE WRENCH CHART

Ft. lbs. Torque for tightening Plugs

Plug Th'd	Cast Iron Hd.	Alum. Hd.
10MM	14	12
14MM	30	29
18MM	34	32
⅞"-18	37	35

SERVICE PROCEDURE

1. Spark plugs should be tested and cleaned in the Champion service unit at regular intervals or when you change oil, to assure maximum service.
2. Compare the spark of the old plugs with a new plug, in the Champion tester.
3. If new plugs are not required, clean the old plugs for further use.

142128 1942 PRINTED

DEFENDANTS' EXHIBIT B.

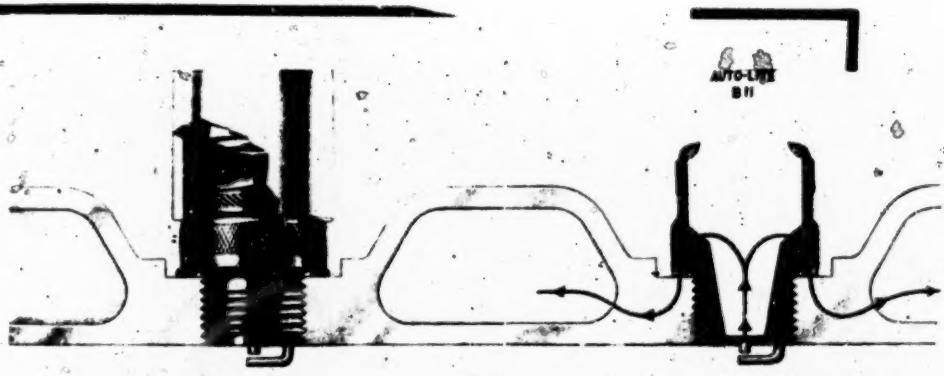


FIG. 7 FIG. 8

(a) Check spark plug gap (Fig. 5).
(b) Screw the spark plug into the cylinder head by hand as far as it will go. (Fig. 6.)
(c) Carefully fit a socket of the proper size over the plug, and pull on the handle very lightly until you feel contact with the seat gasket. (Fig. 7.) Slowly increase the pull on the handle (you will feel the seat gasket compressing) until the resistance to your pull suddenly becomes very great, indicating that the seat gasket has been fully compressed.

THE PROPER TIGHTENING OF SPARK PLUGS IS THE MOST IMPORTANT ITEM OF ALL, AS 50% OF THE TROUBLES DUE TO OVERHEATED SPARK PLUGS ARE CAUSED BY THE PLUGS BEING TOO LOOSE IN THE CYLINDER HEAD. Referring to Figure 8, it is obvious that if a spark plug is not tightened sufficiently to fully compress the seat gasket, there will not be adequate contact between the shell and the cylinder head. This would interrupt the flow of heat from the spark plug to the water jacket (indicated by red arrows) and result in overheating of the spark plug, pre-ignition, burning of insulator and electrodes, blow-by, etc.

CAUTION

The smaller the size of the plug, the less pull on the wrench handle is required to fully compress the seat gasket. For instance, a 14 MM plug requires less pull on the wrench handle than does a ⅞"-18 plug. THIS IS PARTICULARLY IMPORTANT IN THE CASE OF 10 MM PLUGS. WHERE ONLY JUST ENOUGH PULL SHOULD BE EXERCISED ON THE HANDLE TO COMPRESS THE SEAT GASKET. TO AVOID THE POSSIBILITY OF DAMAGE TO THE PLUG, USE A WRENCH HANDLE NOT OVER 4" LONG WHEN INSTALLING OR REMOVING 10 MM PLUGS.

Installation of plugs in aluminum heads requires particular care, as there is danger of stripping the threads in the cylinder head. DO NOT USE GRAPHITE OR ANY OTHER COMPOUNDS ON THE THREADS.

• 6. SERVICING OF SPARK PLUGS

Spark plug electrodes will wear in the course of service. Also, most present day fuels have a tendency to form rusty-brown oxide deposits on the insulator nose. (See Fig. 14, page 13.). Therefore, it is necessary to clean the plugs from time to time, and to re-set the gaps to the size recommended by the car manufacturer.

In the case of passenger cars, it is suggested that you clean and re-gap the plugs after 5,000 miles of operation, and replace them after 10,000 miles. Heavy duty service in certain commercial vehicles may make it necessary to clean and re-gap plugs at more frequent intervals, depending on operating conditions. Plugs used in this type of service should be replaced when the electrodes are worn to such an extent that it becomes impossible to re-adjust them to the recommended gap size and still maintain a reasonably square gap.

DEFENDANTS' EXHIBIT F.

Defendants' Exhibit G.

1459

THE PERFECT
RECONDITION SPARK PLUG CO.
Tel MAin 2-4491 1133 Bedford Ave.

Brooklyn, N. Y. .....194..

M .....

.....

Quan. Amount

Reconditioned
Reconditioned
Reconditioned 1460

B No 1532

General Printed Products Corp.—47 West Street,
New York, N. Y.

1461

Defendants' Exhibit G-1.

1462

Telephone MAin 2-4491

THE
PERFECT RECONDITION SPARK PLUG CO.
1137 Bedford Avenue

Brooklyn, N. Y., ... 194..

A 3367

M .....

.....

1463 Terms: Net Cash .....

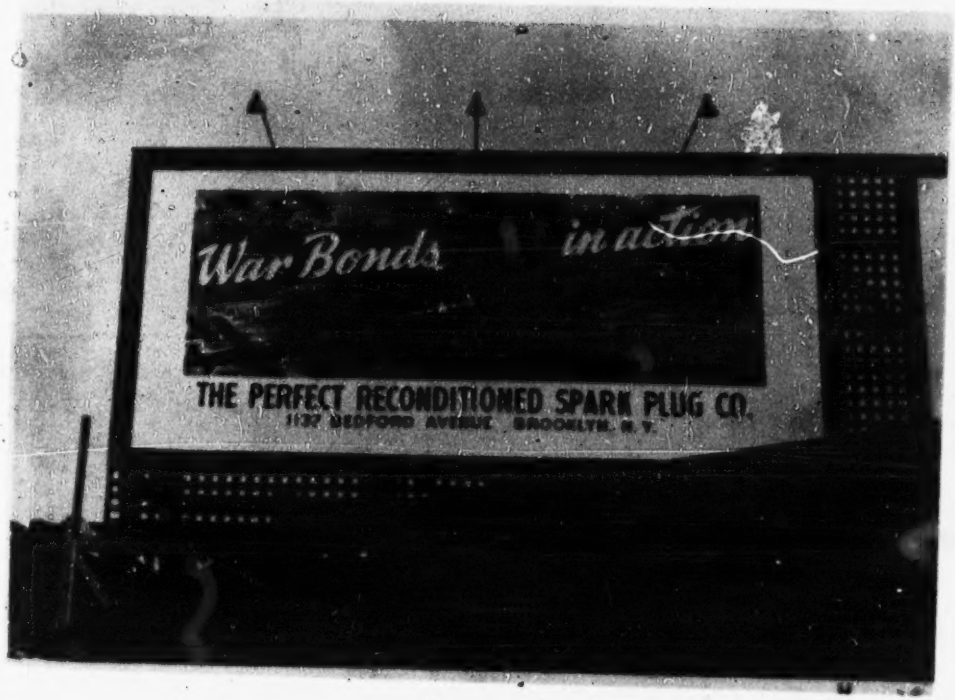
Defendants' Exhibit G-2.

Telephone MAin 2-4491

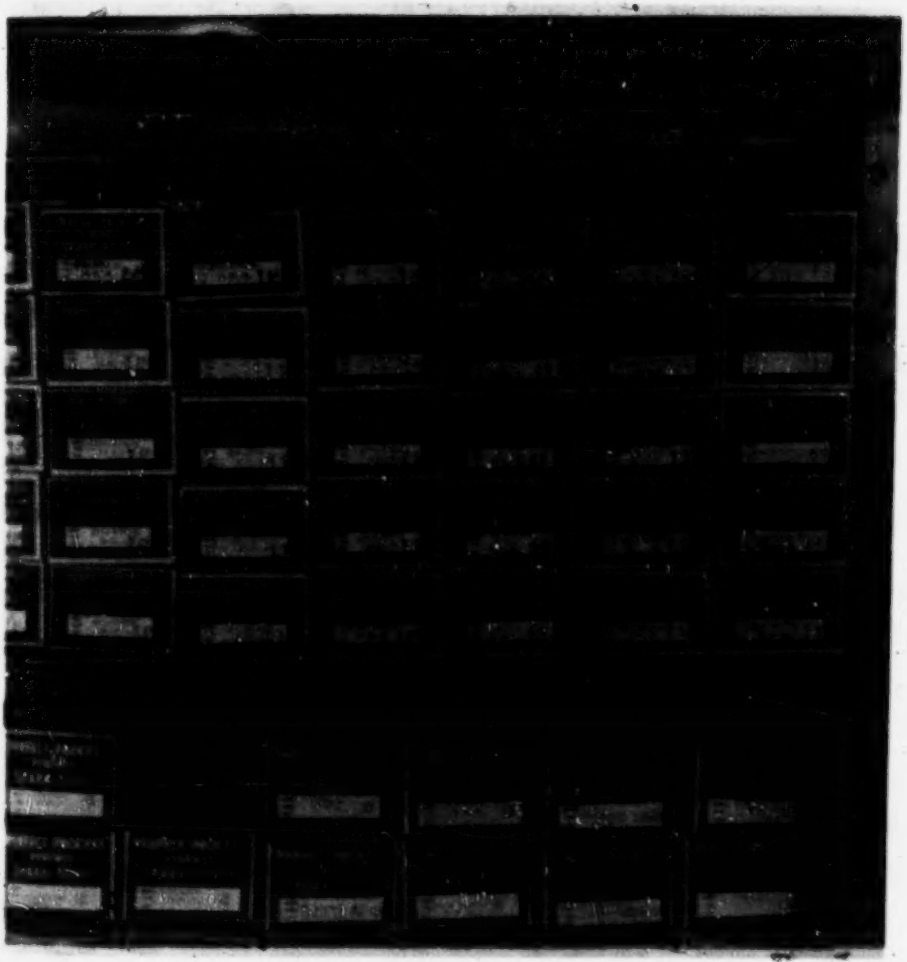
THE PERFECT
RECONDITIONED SPARK PLUG CO.
1133 Bedford Avenue
Brooklyn, N. Y.

1464

DEFENDANTS' EXHIBIT H.



DEFENDANTS' EXHIBIT I.



Opinion of the District Court on Motion for Preliminary Injunction. 1471

UNITED STATES DISTRICT COURT,

EASTERN DISTRICT OF NEW YORK.

—o—

[SAME TITLE]

—o—

June 15, 1944.

BYERS, *D. J.*: 1472

Hearing on plaintiff's motion for a preliminary injunction.

The complaint sets forth two claims for relief, the first for infringement of trade-mark, and the second for unfair competition. The plaintiff is a Delaware corporation having its principal place of business in Toledo, Ohio, and two of the individual defendants reside in this district, where all three apparently conduct business under the name and style of "The Perfect Recondition Spark Plug Company". It therefore appears that the Court has jurisdiction of the cause and of the parties.

The pleadings, and the opposing affidavits disclose a very narrow controversy because with one exception the facts are not substantially in dispute. 1473

The question for decision is whether the plaintiff is entitled to injunctive relief against the defendants in connection with their business of repairing and marketing used and discarded Champion spark plugs of the plaintiff's manufacture used in the operation of motor vehicles.

1474

The controversy exists because the plaintiff asserts that the defendants sell such spark plugs under the original trade-mark, without sufficiently revealing that, when so repaired and put in condition for use, they are in fact second-hand or used plugs which during the process of repair and attempted rehabilitation have undergone certain structural modifications, and hence should not be marketed as Champion spark plugs.

The defendants' calling is not the subject of challenge, nor does the plaintiff assert that the repaired spark plugs are represented by the defendants as new
1475 and unused; nor are they marketed under a trade dress which closely simulates the original package as put out by the plaintiff, except in the basic color scheme of the individual container, and of that the plaintiff does not complain. The offense which the plaintiff attributes to the defendants consists in the following:

(a) Retaining on the exposed portion of the white porcelain insulator in red letters the word "Champion", together with the letter and figure denoting the particular style or type.

1476 (b) Stamping on the box in which ten plugs are packed, upon a white background the name "Champion", together with letters and figures indicating the particular style and type.

Each separate plug is packed by both parties in a cardboard container or box, 3½ inches long as to the plaintiff's product, and 3 inches long as to the defendants'. These in turn are placed in a larger box, containing ten units.

Except that both boxes are blue, they bear no resemblance as to the wording, and concerning the defend-

1477

ants' larger container it is sufficient to say that on the top appears a statement that the spark plug is guaranteed for 10,000 miles. The front and rear elevations contain a pictorial representation of the plug, and the reading matter is: "Perfect Process Spark Plugs Guaranteed Dependable"; and on each end, the panel reads in conveniently large letters: "Perfect Process Renewed Spark Plugs"; beneath those words there is a white space in which is to be inserted (opposite the words in the left column)

1478

Make "Champion"
Type "14 M.M."
Size "H 10" } For example

The smaller box containing the individual plug, as sold by the defendants, repeats the wording on the top and the bottom of the larger box, and on the front panel appears the following in legible white letters on blue:

> "The process used in renewing this plug has been developed through 10 years continuous experience. This Spark Plug has been tested for firing under compression before packing."

1479

And on the rear panel the wording is:

> "This Spark Plug is guaranteed to be a selected used Spark Plug, thoroughly renewed and in perfect mechanical condition and is guaranteed to give satisfactory service for 10,000 miles."

Since the plug has to be screwed into the cylinder of the motor, the lower end is threaded for that purpose;

1480 above the threaded section there is a steel body having a hexagonal collar near the top, wide enough on its faces to accept a wrench used in screwing the plug into place; and on one face of that collar there appears in the plug as sold by the defendants, in small letters, blue on black, the almost illegible word "Renewed". It appears from the affidavits that the word is not stamped into the metal but, when this section of the plug is repainted during the process of repair, the word "Renewed" is stamped so as to penetrate the paint; as to the samples in evidence that word has partly disappeared.

1481 It appears that these parties have been before the Federal Trade Commission four or more years ago, and that the last-mentioned word "Renewed" was directed to be placed on the defendants' plug as the result of that proceeding—at least so much is asserted by the defendants and not denied by the plaintiff—but I am satisfied that, as applied, the word is inadequate to accomplish any real purpose.

No one disputes that the defendants' enterprise is entirely legitimate and that there is a market for discarded and worn-out spark plugs which have been cleaned and repainted, and in which interior spent parts are re-

1482 placed, so that such an article has a useful life of some thousands of miles in ordinary use.

It also seems reasonably apparent that a purchaser of such repaired spark plugs may well wish to know what the original product was, which he is acquiring in this repaired and somewhat reconditioned state; it is also reasonable to say that the defendants' conduct of such an enterprise is not to be criticised, provided that they inform their customer adequately concerning the nature and character of the article in question; and also pro-

1483

vided that there has been no alteration or modification of the original assembly, so that the plug in its repaired state is not something essentially different from the original product of the plaintiff; and provided further, that they avoid misleading a user into thinking that defendants are selling the original spark plug as manufactured by the plaintiff.

The plaintiff has conducted previous litigation involving this question against one Reich engaged in the same activity as these defendants, and it relies mainly upon the decision of the Circuit Court of Appeals for the Eighth Circuit in that case, *Champion Spark Plug Company* v. 1484
Reich, 121 Fed. (2d) 769, as an authority which this Court should follow in deciding this motion. See also *Champion Spark Plug Company* v. *Emener*, 16 Fed. Supp. 816.

In the former case, the District Court had found that the defendant did not restore these spark plugs to their original condition and that they could not truthfully be referred to as "reconditioned" plugs nor as "Champion" plugs of a given type number; and that the repaired plugs had been so changed in functional features that they ceased to possess several of their original distinctive mechanical and functional features, and were 1485 5
no longer Champion spark plugs as the term was used by the plaintiff and known to the motoring public.

The District Court permitted the defendant to use the plaintiff's trade-mark collaterally for the purpose of identification; in commenting upon that aspect of the case, the Circuit Court of Appeals said that, under the said findings, the disposition made by the District Court was in error; the pertinent language is:

> " * * * In view of the radical changes made in the spark plugs by defendant, he should not be

1486

permitted to use the trade-mark 'Champion' upon his 'repaired' spark plugs. This use of the trade-mark is not rendered collateral and explanatory by stamping the word 'Repaired' upon the hex of the plugs. Clearly the trade-mark left where it was placed by the plaintiff 'indicate(s) the goods' of plaintiff, and 'a casual purchaser might look no further and might be deceived'. *Prestonettes, Inc.* v. *Coty, supra,* 264 U. S. at pages 368, 369, * * *. Under these circumstances the plaintiff is entitled to injunctive protection against its use by the de-

1487 fendant upon his changed plugs. Since, as the court found, defendant's spark plugs are no longer 'Champion' plugs, they should not be sold bearing the original trade-mark. *Ingersoll* v. *Doyle, supra;* 15 U. S. C. A. §96."

It was stated on the argument of this motion, that the decree in the *Reich* case had resulted in putting that defendant out of business, and I therefore asked counsel to ascertain the true facts in that connection, and they have done so, as appears from supplemental affidavits pro and con; I am satisfied, after reading the affidavits

1488 of Reich, verified May 26, 1944, the defendant in that action, and of Wilber Owen, attorney for the plaintiff in this cause, verified May 31, 1944, that the former Reich business is being continued by McFall Engineering Co., 3031 Main Street, Kansas City, Co., which sells spark plugs originally manufactured by the plaintiff, in boxes containing the following on the top thereof:

> "'The Best Rebuilt Spark Plugs'.
> These repaired spark plugs were originally manufactured by The Champion Spark Plug Co.

1489

They have been thoroughly renovated and repaired. New negative electrodes installed when necessary. All metal parts refinished and bronze plated.

A highly efficient product.

By

McFall Engineering Co.
3031 Main St., Kansas City, Mo."

Further, that the figures and letters devised by the 1490
plaintiff to indicate a given type of plug are not duplicated by the McFall Co., which has prepared a chart of its own to show which plugs are suitable for use in given makes of automobiles.

The foregoing constitutes practical evidence that the injunction granted by the Court in the Eighth Circuit did not result in destroying the Reich business.

It is requisite in the present case, therefore, to seek for an adequate showing concerning the effect upon the plaintiff's spark plugs of the repair and recondition process as applied by these defendants; in this connection the affidavit of Brace H. Sibley, the plant manager of the 1491
plaintiff, is factual and detailed with reference to tests which he applied to forty used and repaired Champion plugs acquired by the plaintiff indirectly from the defendants. Pages 7-15, inclusive, contain such detailed and precise statements concerning the variations between the plaintiff's product and the device which the defendants sell, as to admonish the Court that, in the absence of a direct denial of these assertions, there is a *prima facie* showing of facts which brings this case squarely within the record in the *Reich* case.

1492

The structural differences have to do with the spark gap settings on more than half of the forty plugs tested by Sibley; it will be understood that the precision and proper adjustment of the gap settings, and the position of the spark within the cylinder of the motor (which it is the office of the spark plug to supply) largely determine the efficacy of the device.

Experience has dictated the necessity for slight changes in a given design such as in the case of the H-10 plug of which the number 64 A was discontinued in October of 1940 and succeeded by 64 C and later by 64 D. De-

1493

tails of the firing end dimensions and permitted tolerance in reference thereto are set forth in detail. It is stated that: "In only one of the forty plugs referred to (the plug marked A9) were the three critical dimensions in the firing end of the plug all within the Champion Company's manufacturing specifications. * * *. In twenty-four of these plugs two of these dimensions were wrong * * *. In all but seven of the 40 defendants' plugs which I have examined, as above stated, the semi-petticoat end of the insulator had been completely destroyed by sand-blasting and in those seven plugs it had been badly dam-

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aged. * * * It (petticoat) is the term applied to the sharp lower edge of the insulator and is functional in that it causes oil which accumulates on the insulator to drip off the insulator instead of running down the center electrode and forming a drop between the sparking ends of the electrodes. * * * In addition to the changes in gap settings and other firing end dimensions in the forty plugs I examined, I found that the adjacent portions of the center and side electrodes were not properly shaped to give efficient service. * * * The changes from original dimensions which have been made in defendants' plugs

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detrimentally affect their efficiency and make them incapable of rendering the high quality of service which Champion spark plugs as originally manufactured and sold render in the cars for which they are recommended by the plaintiff."

In referring to the wire constituent of the electrodes in the defendants' plug, the affidavit says: "Such examination showed that this substituted wire is of a different composition from that used by plaintiff in these plugs when they were manufactured and sold as new Champion plugs, it does not embody the invention of patent No. 1,529,277 above referred to, it is not of as 1496
high a quality as the wire originally used by plaintiff in these plugs, and in my opinion such substituted wire will not give as efficient service as did the wire originally placed in said plugs by plaintiff. Furthermore, most of the center wires in defendants' plugs have been shortened from their original dimensions and the portions that remain have been burned from long usage, most of them badly. * * * A large proportion of the forty plugs above referred to would not give satisfactory service in the engines for which plaintiff's plugs of corresponding type numbers are recommended for use by plaintiff."

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The defendants do not meet the foregoing in presenting the affidavits of Hugh S. Cameron, who contents himself with saying: "The argument of this affidavit (the Sibley affidavit) is unsound for the following reason: engineering science does not permit exact theoretical precalculation as to the ideal spark plug and the final judgment upon the plug must depend upon its actual performance in the engine."

Whether the plaintiff's spark plug has been properly designed and assembled, and whether its elements coop-

1498 erate as Sibley says they were designed to do, is beside the point. As assembled in accordance with the plaintiff's specifications, the completed structure constitutes the Champion spark plug and, if the defendants are engaged in selling something else, they have no right to use the word "Champion" to describe their wares.

The Cameron affidavit refers to variable conditions which affect the operation of the gasoline motor and the functioning of the spark plug, and continues: "In view of the above conditions, it is technically impossible for an engineer to show on purely theoretical grounds that
1499 the defendants' reconditioned plugs can no longer be regarded as Champion spark plugs. Any proper judgment thereon must be based upon the comparative actual performance in engines of the new Champion plugs and the reconditioned Champion plugs. Operation both in testing equipment and in actual use in engines, shows that the reconditioned plug fires as well and performs as well as a new plug. There is, therefore, no engineering basis for saying that the defendants' reconditioned plugs are no longer reconditioned Champion spark plugs."

The foregoing probably states concisely the contentions
1500 of the defendants with regard to their right to continue to use the word "Champion" in marketing their product, and in the opinion of this Court there is so disclosed a failure to understand that the question is not whether the new plugs function any better than the old ones which have been repaired, or as well; but whether the article which the plaintiff manufactures is intrinsically the same thing that the defendants are selling; if it is not, they have no right to use the plaintiff's trade-mark, and the opposing affidavit of Cameron should be construed as though it were a plea in confession and avoidance, and

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the avoidance aspect of it does not accomplish any legal purpose.

The averments in the Sibley affidavit of the experimentation carried on to develop the most efficient spark plug for certain Ford cars, and those of other makes, are too factual to be brushed aside with the comment that the plaintiff is mistaken in its theories of construction of the device which it has been making and selling in large volume, for many more years than the defendants have been in business.

This decision should not be controlled by the reasoning applied to second-hand automobiles, vacuum cleaners 1502
and other like products as to which the purchaser expressly contracts for a second-hand article which has been repaired and put in usable condition, for the reason that ultimate spark plug purchasers, as distinguished from distributors and garage men, may or may not know that they are buying a repaired and reconditioned article. The affidavits upon this motion leave no doubt in the mind of the Court that, as to certain large consumers, there is no misunderstanding whatever, for they expressly engage to buy reconditioned spark plugs; but whether the casual motorist stopping at a service station 1503
for a road repair is always equally apprised, when he asks for a "cheaper spark plug" than that manufactured by the plaintiff or other equally well-known products, is left in considerable doubt. While it is true that the defendants should not be held responsible for possible misrepresentations by repairmen who handle their product, it is equally clear that there is nothing unreasonable in requiring of them that they shall take reasonable safeguards to prevent the substitution of their product for that of the plaintiff. In other words, the unfair competi-

1504 tion issue cannot be resolved on the affidavits pro and con, but the trade-mark aspect of the case stands on a different footing.

As a practical matter, it may be difficult to require that the word "Champion" be physically removed from the white porcelain exposed portion of the insulator, although Sibley's affidavit asserts that this could be accomplished by the application of hydrofluoric acid without damage to the plug, if it is immediately washed in water. He also asserts that the word "Used" can be stamped in one side of the hex of the spark plug, and
1505 the letters filled with white paint, and that the metal parts of the plug, which would have to be treated in any case during the process of repair, could be painted a distictive color, and that all such operations would not cost to exceed one cent per plug.

As to the first suggestion, the Cameron affidavit recites that, if the porcelain were to be subjected to the acid wash, the effect would be to remove the glaze therefrom, thus rendering the insulator porous, which would tend to defeat its ability to function, by causing the spark to jump across the insulator, and make the plug useless. No reference is made to the possibility of re-
1506 glazing the treated portion of that surface.

It is obvious that a fair and equitable dispostion of this controversy invites the recognition alike of conflicting interests, and of the difficulty of establishing a clear line of demarcation between them.

The plaintiff has a right to protect its trade-mark and to prevent unfair competition with its product.

The defendants are engaged in an entirely legitimate calling—perhaps because the plaintiff has deliberately chosen not to reclaim its own discarded product, although

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experience has shown that reclamation is possible and financially profitable. Moreover the defendants assert with a show of reason, that some measure of identity must be preserved in connection with marketing the repaired and reconditioned product of the plaintiff, if they are to reap a just reward for their efforts. Incidentally this last consideration is a completely practical answer to the argument that, once the plaintiff has sold its spark plug under its trade-mark, its concern and interest in the ulitmate career of its product have come to an end. If that were true, the defendants would not wish to retain the plaintiff's indicia of origin in the conduct of their own operations; which is the same thing as saying that the plaintiff has a continuing interest at stake, which survives the passage of legal title from it to its customers. Whether that continuing interest has been accorded a legal recognition compatible with its practical existence, it is not necessary to inquire, for its presence is implicit in the defendants' case. If under these circumstances the plaintiff's interests are at stake when its discarded trade-marked article has been resuscitated as a marketable product, those interests are entitled to equitable protection.

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Cf. *General Electric Co.* v. *Re Nu Lamp Co.*, 121 Fed. 164, 128 Fed. 154.

The rights of the parties should not be in conflict, because their activities are conducted at different levels; their respective distributional efforts need never collide if reasonable care is taken to avoid such a happening.

If the defendants were to affix the prefix "Ex" with a hyphen to the word "Champion" as it appears on the in-

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sulator, a fairly accurate and precise disclosure of the nature of their product would be made. One meaning of the prefix is "from", and another is "former", both of which would indicate that the article which the defendants sell is fabricated from the Champion spark plug, or that it was formerly that article; no representation is implied that structurally the repaired plug is identical with the new one, and it is not thought that this would constitute such an appropriation of the plaintiff's trade-mark by these defendants as to accomplish infringement thereof.

Moreover it would call the attention of a discriminat-
1511 ing purchaser to the likelihood that the letters and figures adopted by the plaintiff in its chart, to indicate the specific type of plug required for the functioning of a given motor, would not necessarily govern the use of the repaired plug.

In addition, it is thought that the defendants should stamp the word "Used" into the metal of one face of the hex of the spark plug, and cause the letters to be filled with white paint, and that in repainting the metal part of the plug, some distinctive color other than that used by the plaintiff should be employed, such as red. Cf. *Champion Spark Plug Company* v. *Mosler*, 233 Fed. 113.

1512 If the suggestion concerning the use of the prefix "Ex" is found acceptable, the defendants should stamp the compound word "Ex-Champion" on the containers of their reconditioned spark plugs originally manufactured by the plaintiff, and in all advertising matter employed in connection with the sale of such product.

The foregoing avoids a direction respecting the removal of the word "Champion" entirely from the exposed portion of the poreclain insulator, because I should prefer so doing, for the purpose of a preliminary injunc-

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tion, without requiring proof on the contested issue concerning the allegedly deleterious effect of exacting such a requirement, upon the functioning of the repaired and reconditioned spark plug, if hydrofluoric acid is employed in that connection.

The foregoing is intended to indicate that the Court believes that the plaintiff is entitled to a temporary injunction pending the trial of this cause, along the lines indicated, and it is hoped that the parties can agree upon the form for such disposition of the motion; failing that, the order will be settled on notice, at which time its precise provisions will be settled by the Court.

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The defendants' argument that the plaintiff has been guilty of *laches* has not been overlooked. There is no such defense raised in the answer, nor is it deemed to be an objection worthy of consideration upon this motion, in view of the previous efforts which have been made by the plaintiff to establish its rights through a Federal Trade Commission proceeding, and the litigations against others in the defendants' line of business.

Settle terms of temporary injunction on five days notice. Defendants' motion for summary judgment denied.

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M. W. B.,
U. S. D. J.

Order on Plaintiff's Motion for Preliminary Injunction and on Defendants' Motion to Dismiss.

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IN THE UNITED STATES DISTRICT COURT,

FOR THE EASTERN DISTRICT OF NEW YORK.

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[SAME TITLE]

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1517 This cause having come on to be heard on plaintiff's motion for a preliminary injunction and on defendants' motion to dismiss and for summary judgment, and having been argued by counsel for both parties and submitted on the affidavits and exhibits, and the Court having rendered an opinion, and the plaintiff having moved for leave to file further affidavits, and having submitted such further affidavits, and the defendants having opposed such motion, and the Court having granted plaintiff's motion to file said further affidavits, and having rendered a supplemental opinion and being fully advised in the premises, It Is Hereby Ordered as follows:

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1. That plaintiff is the owner of the entire right, title and interest, together with all claims for damages and profits on account of infringements thereof, in and to the trade-mark "Champion" and the following registration thereof in the United States Patent Office:

> Registration Number 92,950, August 12, 1913, for the word "Champion" as a trade-mark for spark plugs; Renewed on April 11, 1933.

Order on Plaintiff's Motion for Preliminary Injunction and on Defendants' Motion to Dismiss.

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2. That since it is alleged and *prima facie* shown that defendants, Peter Sanders, Samuel Sanders and Harry Sanders and each of them, have infringed said registered Trade-Mark No. 92,950 and the rights of plaintiff thereunder and that said defendants have unfairly competed with plaintiff by selling to garage men, dealers and others for resale to the public, spark plugs of plaintiff's original manufacture still bearing the trade-mark "Champion" and the type-marks placed thereon by plaintiff when the plugs were manufactured, which said spark plugs are alleged to have been so changed and altered in material respects before their sale by defendants that they have ceased to have several of the distinctive mechanical and functional features which characterized them when they were manufactured and sold by plaintiff as Champion plugs of the respective type numbers marked thereon and which are said to be no longer *"Champion"* spark plugs, as that term is used by plaintiff and known to the motoring public.

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3. That defendants, Peter Sanders, Samuel Sanders and Harry Sanders, both individually and as partners doing business as The Perfect Recondition Spark Plug Company, and each of them, their agents, attorneys, salesmen, workmen, employees, servants, privies and confederates, be and they are hereby enjoined, pending the entry of final decree or the further order of this Court, from selling or offering for sale, or delivering to others for sale, any spark plug of plaintiff's original manufacture which has been so changed or altered by them that it has ceased to have one or more of the mechanical or functional features which it possessed when it was manufactured and sold by plaintiff, unless and until——

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(a) The plaintiff's marks have been removed from the plug, or each plug bears a label securely pasted to and around the insulator, in a manner as permanent as practicable, covering the plaintiff's trade mark "Champion" and other printed matter originally appearing on the plug; said label to be legibly printed and to bear the word "Ex-Champion" and the words "Made in the U. S. A.";

(b) the metal shell and bushing nut have been completely covered by permanent paint or lacquer of some
1523 distinctive color other than that employed by plaintiff on its new plugs i. e., red, orange, aluminum or yellow; and

(c) the word "Used", all in capital letters, has been indented in one face of the hex portion of the metal shell of said plug, in a size as large as such face will permit, such indentations to be filled with white paint and to be of a depth sufficient to enable them to retain enough white paint to leave each letter of said word fully and distinctly visible in white on the colored background previously placed thereon, as required by clause (b)
1524 hereof, when the surplus white paint has been wiped from said surface; provided, however, that in the case of plugs of 10 mm. or smaller size instead of indenting the word "Used" in the metal shell, the word "Used" in capital letters of a size as large as the faces of such plugs permit, may be stamped and baked upon the face of the hex of such plugs by an electrical hot press in a color distinctive from the background of the face of the plug, so that the word "Used" shall be fully and distinctly visible against the colored background previously placed thereon, as required by clause (b) hereof.

Order on Plaintiff's Motion for Preliminary Injunction and on Defendants' Motion to Dismiss.

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4. That defendants, Peter Sanders, Samuel Sanders and Harry Sanders, both individually and as partners doing business as The Perfect Recondition Spark Plug Company, and each of them, their agents, attorneys, salesmen, workmen, employees, servants, privies and confederates, be and they are hereby enjoined, pending the entry of final decree or the further order of this Court, from selling or offering for sale or delivering to others for sale, any spark plug of plaintiff's original manufacture which has been so changed or altered that it has ceased to have one or more of the mechanical or functional features which it possessed when it was manufactured and 1526
sold by plaintiff, in cartons or containers on which the word "Champion", or any abbreviation thereof has been stamped, printed or otherwise displayed, and from using plaintiff's name or any abbreviation thereof, in selling or advertising for sale any such changed or altered spark plug of plaintiff's original manufacture without fully and clearly stating that the same have been reconditioned and repaired, provided that nothing contained in this order shall prevent defendants from printing or stamping the compound word "Ex-Champion" on such cartons and containers and in defendants' advertising matter. 1527

5. That defendants' motion to dismiss the complaint and for summary judgment be and the same is hereby denied.

6. That a security bond, or undertaking be filed by the plaintiff in the sum of Five Hundred Dollars ($500.00), conditioned upon the payment of such costs and damages as may be incurred or suffered by the defendants, by reason of this Injunction order, if it be finally decided that

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the defendants have been wrongfully enjoined or restrained thereby.

Dated, November 16, 1944.

MORTIMER W. BYERS,
United States District Judge.

Approved As To Form
WARD, CROSBY & NEAL
Solicitors for Plaintiff

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By JOSHUA WARD
A member of said firm
Office & P. O. Address
225 Broadway
New York 7, N. Y.

JOHN WILSON HOOD
Attorney for Defendants
261 Broadway
New York 7, N. Y.

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Order on Consent Modifying Order on Preliminary Injunction Motion.

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IN THE UNITED STATES DISTRICT COURT,

FOR THE EASTERN DISTRICT OF NEW YORK.

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[SAME TITLE]

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Upon the representation by defendants that in order to avoid possible damage to the plugs of all sizes the 1532
cost would be very substantial for the mechanical equipment required to indent the word "Used" in a face of the hex portion of the metal shell of a plug (as provided in Paragraph 3, clause [c] of the Order entered herein on or about November 16, 1944); and upon the representation by the parties hereto that they are investigating the possibilities of settling the subject matter of this suit, and in the event that such settlement is not reached they contemplate bringing the suit on for final hearing during January, 1945; and upon the conjoint consent of the parties hereto by their attorneys, it is hereby

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ORDERED, that pending final hearing and determination of the above entitled cause by the District Court the defendants shall be deemed to have complied with clause (c) of Paragraph 3 of the Order entered herein on or about November 16, 1944 if the word "Used" all in capital letters of a size as large as the face of said plugs will permit, has been stamped and baked upon the hex portion of said plugs of all sizes by an electrical hot press in a dark blue color in a manner clearly and distinctly

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visible on the background on the face of the metal shell of said plug, which metal shell and the attached bushing nut shall have been completely covered by permanent aluminum paint or lacquer in compliance with clause (b) of said Paragraph 3 to provide said background.

Dated, December 6, 1944.

MORTIMER W. BYERS,
U. S. D. J.

Consented To:

1535 WARD CROSBY & NEAL

By JOSHUA WARD
Attorneys for Plaintiff,
Office & P. O. Address,
225 Broadway,
New York 7, N. Y.

JOHN WILSON HOOD,
Attorney for Defendants,
Office & P. O. Address,
261 Broadway,
1536 New York 7, N. Y.

Opinion of the District Court on Final Hearing.

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UNITED STATES DISTRICT COURT,

EASTERN DISTRICT OF NEW YORK.

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[SAME TITLE]

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July 2, 1945.

1538 This cause has undergone final hearing, and no substantial change in its essential features has been brought to light which would justify a repetition of what was said in connection with the application for preliminary injunction (56 Fed. Supp. 782 and 787). The cause is not essentially different from the cases of *Champion Spark Plug Co.* v. *Emener*, 16 Fed. Supp. 816, and *Champion Spark Plug Co.* v. *Reich*, 121 Fed. (2d) 769.

The matters which have been illuminated in the testimony may be briefly referred to:

1539 A. As to the structural difference between the spark plugs sold by the defendants, and the new plugs manufactured and sold by the plaintiff, forty of such plugs constitute Plaintiff's Exhibits 1, 2, 3 and 4, and the respects in which the repaired second-hand plugs no longer possess the physical characteristics imparted to them by the plaintiff are specified in Findings 11 and 12 as submitted by the plaintiff. The evidence on this subject is undisputed, and no attempt has been made to trace the source of those changes, either to wear and tear prior to the discarding of the plug by the original user, or to the process of repair as conducted by the defendants. It

1540 is the end result which has to do with the plaintiff's trade-mark rights, not the means whereby that condition was brought about.

It seems too clear for further discussion, that plaintiff's product, which is a precision device, of accessory character, cannot be sold in the second-hand market in a fundamentally altered form under the plaintiff's trade-mark, without doing violence to that which the trade-mark proclaims; it seems equally clear that any reference to the origin of the repaired plugs, in connection with their distribution by the defendants, must be in an explanatory sense merely, and in such a form as to show
1541 that the defendants have repaired a used article of designated origin and that the defendants stand sponsor for the quality of the repairs which they have made, and also the anticipated performance of the rehabilitated device.

B. As to the removal of the trade-mark "Champion", and the type or style marks on the insulator, the evidence leaves no room for doubt that this can be done safely and cheaply, and without impairment of the porcelain itself. The demonstration at the trial was conclusive on that subject.

1542 The necessity for doing this as to the trade-mark follows from what has been written above. The reason is equally applicable to the style marks and numbers. The variations in the physical components of the plaintiff's products referred to in findings 11 and 12, as sold by the defendants, compel the removal of the style marks and numbers from them, if misrepresentation is to be avoided.

The defendants argue that the specifications employed by the plaintiff are too minute and precise to have any practical value. If this proves anything in a trade-mark case, it is that the defendants' business can be conducted

profitably without regard to plaintiff's system of style marks and numbers, and consequently they can be removed with entire confidence that no damage will be thereby occasioned to the defendants. 1543

C. As to the unfair competition aspect of the case, a doubt still persists on the part of this court. There is no evidence of a palming off of the defendants' wares as the new and original product of the plaintiff; there is no evidence that any purchaser was induced to buy the plugs as sold by the defendants, relying upon a representation that they were as serviceable as new ones.

It may be assumed that to some undisclosed extent purchasers who would otherwise buy new plugs of plaintiff's manufacture are induced to take the defendants' wares instead, at a lower price, but that is not unfair competition, so long as no deception is practiced by the defendants to accomplish that purpose, and so long as they do not render deception convenient or likely on the part of their customers among service station proprietors. 1544

All cases relied upon by the plaintiff have been examined, and involve substitution or palming off, or the use of a trade-name so as to suggest an untrue origin of the merchandise in question, in order either to capture some of the plaintiff's business, or to unfairly trade upon his (its) name and commercial stature. 1545

The most that can be urged here is that possibly these defendants have done the latter, and their failure to print their own name and place of business on their cartons and boxes lends a certain force to that argument. No good reason appears why they should not openly stand sponsor for the repairs that they have effected in order to render their wares acceptable to users.

1546 I prefer not to make a finding that unfair competition has been shown in this record, but to leave the issue for future determination, if the occasion should arise, in view of the requirements hereafter to be stated touching the wording deemed to be appropriate for use by the defendants upon their cartons and boxes.

Special defenses have been pleaded which seem not to affect the issues, but which should be referred to by way of assurance that they have not been ignored:

Estoppel. The plaintiff puts out a spark plug cleaner and recommends that it be used by those who purchase
1547 its product. How this could have resulted in a change of position on the part of defendants, whereby they have acted or refrained from acting in reliance upon the plaintiff's said conduct is not made to appear. What a spark plug user may do to keep his own property in its best condition, and what a dealer in discarded plugs, who buys, repairs and sells them for further use, may do lawfully by way of promoting his business, seems to be so remote, one from the other, as to discourage discussion of the subject.

Implied License. This is related to the foregoing, and
1548 means that the sale of the plug-cleaning device in effect licenses the defendants not only to use it, but to sell plugs which they have repaired under the plaintiff's trade-mark.

If what has been already written by other courts and this fails to indicate that the plaintiff's trade-mark is not assigned as part of the plugs, or as part of the cleaning device, and consequently no license can be implied in favor of these defendants in connection with their own commercial traffic, further exposition of the subject would be futile.

Laches. As stated in the opinion on temporary injunction, the defense, if seriously advanced, is without substance. In 1936 the plaintiff gave written notice to the defendants of the then recent decision in the *Emener* case, *supra*, and has persistently continued ever since to admonish the defendants of its intention to seek legal redress. The proceedings initiated before the Federal Trade Commission in 1938 were not concluded until 1941 when the defendants withdrew their appeal from a "cease and desist" order. 1549

The fact that the order was complied with by the defendants of course does not affect the claim of laches.

This complaint was filed in April of 1944. Meanwhile the *Reich* case, *supra*, was decided in the Eighth Circuit in 1941. So far from sleeping on its rights, clearly the plaintiff has been diligent in asserting them. 1550

So far as the motion to dismiss as to Peter Sanders is concerned, there is evidence, but not from him, although he is said to have been in court throughout the hearing, that late in 1943 or early in 1944 he withdrew from the partnership with his sons, the remaining defendants. No formal proof of dissolution of the firm was offered, and he and his wife own the building in which the business is conducted. For all that appears, he may still be a silent partner, and it is not seen that dismissal as to him would be appropriate, but rather that the injunction to be issued should in terms include him. 1551

It results from the foregoing and from the findings which are filed herewith, that the temporary injunction is to be supplanted by a permanent injunction which shall provide:

1. The defendants are to be forbidden to use the plaintiff's trade-mark "Champion" on the spark plugs re-

1552 paired and sold by them of the plaintiff's manufacture, and also the style and type marks of figures or letters or both; such trade-mark and such style and type marks are to be removed entirely from said plugs.

2. The word "used" or "repaired" is to be stamped and impressed in the metal of the "hex", and the word is to appear in white paint, and the metal part of the plug is to be painted some distinctive color as may be agreed upon.

3. The plaintiff's trade-mark "Champion" and the
1553 plaintiff's type or style marks are to be removed from the cartons and containers.

The defendants may affix to the cartons and containers of the plugs which they sell which were originally manufactured by plaintiff, the following:

> "Used spark plug(s) originally made by Champion Spark Plug Company, repaired and made fit for use up to 10,000 miles, by Perfect Recondition Spark Plug Co., 1133 Bedford Avenue, Brooklyn, N. Y."

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The name of the plaintiff may be in slightly larger type than the rest of the body of the legend, and the name and address of the defendants to be larger and more prominent than the legend itself.

The word "repaired" is chosen as being more accurate than the word "reconditioned", which would be inappropriate in view of the changes in physical characteristics referred to in findings 11 and 12.

Settle decree; no costs.

M. W. B.,
U. S. D. J.

Findings of Fact and Conclusions of Law.

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IN THE UNITED STATES DISTRICT COURT,

FOR THE EASTERN DISTRICT OF NEW YORK.

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[SAME TITLE]

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This cause having come on for final hearing on the pleadings, testimony, exhibits and stipulations and having been fully argued by counsel for the respective parties, 1556
the Court finds facts and states its conclusions of law as follows:

FINDINGS OF FACT.

1. Plaintiff and its predecessors for many years have been engaged in the manufacture of spark plugs which they have marketed under the trade-mark "Champion" and have sold nearly one billion (1,000,000,000) such plugs each having the word "Champion" printed or stamped conspicuously on the insulator thereof. Many hundreds of millions of said plugs have been sold and shipped in interstate and foreign commerce. 1557

2. Plaintiff is the owner of the trade-mark "Champion" for spark plugs and of Certificate of Registration of same in the United States Patent Office No. 92,950, dated August 12, 1913, and renewed on April 11, 1933.

3. Plaintiff and its predecessors in business have expended approximately Twenty Million Dollars ($20,000,000.00) in advertising the merits of their said Champion spark plugs by means of advertisements in national and trade publications and other forms of direct advertising.

1558 4. Plaintiff manufactures and sells upwards of seventy (70) different variations of its Champion plugs. Each of these more than seventy (70) different types of Champion plugs differs slightly in one or more dimensions from every other of such types. Each Champion plug is manufactured to drawings and specifications prescribed by plaintiff's engineers for that particular type, the type number is prominently marked on the insulator of the plug, and Champion plugs of that type number are recommended by plaintiff for use in certain specified automobiles.

1559 5. Practically all of the functional features of Champion spark plugs are located in the end which is screwed into the cylinder of the motor, commonly called the "firing" end of the plug. Important among these features are:

(1) The shape of the firing end of the insulator, commonly called the "semi-petticoat end" or the "skirt";

(2) the shapes of the adjacent faces of the center and side electrodes, referred to in Exhibits 16, 16-A, 16-B and 16-C as the "Relation of Side Wire to
1560 Center Wire";

(3) the mass of insulating material between the end thereof and the point where the insulator seats on the metal shell, which largely governs the heat range of the spark plug;

(4) the distance between the center and side electrodes at the point where the spark is formed, commonly called the "spark gap";

(5) the distance from the end of the insulator to the end of the center electrode, referred to in

Exhibits 16, 16-A, 16-B and 16-C as "Distance Tip of Core to End of Center Wire; 1561

(6) the distance from the end of the insulator to the end of the metal shell, referred to in Exhibits 16, 16-A, 16-B and 16-C as "Distance Tip of Core to End of Shell"; and

(7) the distance from the end of the metal shell to the end of the center electrode, referred to in Exhibits 16, 16-A, 16-B and 16-C as "Distance End of Shell to End of Center Wire."

6. Plaintiff supplies Champion spark plugs to a large number of manufacturers for use as factory equipment in automobiles, trucks and other motor vehicles. In adopting a plug for use as factory equipment it is customary for the engineers of such manufacturers to make extensive factory and road tests of various sets of spark plugs which differ from each other only in some of the dimensions enumerated as numbers (5) to (7) of fact finding No. 5 and to select for factory equipment the type of plug which is found to give the most satisfactory and economical service. 1562

7. Many types of Champion spark plugs differ from other types of Champion spark plugs only in slight variations in the dimensions in the firing ends of the plugs. In some instances changes of less than one-thirty-second (1/32) of an inch in the length of the center electrode of a Champion spark plug and a corresponding change in the bend of the side electrode have made such plug acceptable by the engineers of motor car manufacturers for use as factory equipment on their cars after the same plug without such change had been rejected. 1563

1564 8. It is common practice for owners of automobiles to purchase replacement spark plugs from garages and service stations and to have them installed by the seller or by a mechanic or attendant in his employ. A large percentage of spark plugs purchased by car owners are installed in this manner without the purchaser seeing the carton or container in which the plug was packed. The used and replaced spark plugs are generally discarded by the owners and left with the person who installs the replacement plugs. In this manner, large quantities of used and discarded Champion spark plugs accumulate in
1565 garages and service stations without cost to them.

9. Defendants' business is to purchase such used and discarded Champion spark plugs, sandblast the firing ends thereof, cut off or otherwise remove worn and roughened portions of the center electrodes and rebend the side electrodes and in many plugs to entirely remove the original side electrodes and add new side electrodes of different composition, remove rust from the metal shells and bushings, paint the metal parts of the plugs and to sell such plugs to garages, service stations and others with the knowledge and intent that they shall be resold to the
1566 motoring public as used and repaired "Champion" plugs of the type numbers originally placed thereon by plaintiff.

10. The ten spark plugs in evidence as Exhibit 1 were sold by defendants on or about November 12, 1943, as Champion No. H-10 spark plugs, and the thirty spark plugs in evidence as Exhibits 2, 3 and 4 were sold by defendants on or about the same date as Champion No. 7 spark plugs.

11. Each of defendants' forty plugs in evidence as Exhibits 1, 2, 3 and 4 has been changed to such an extent since it was manufactured and sold by plaintiff that it no longer responds to plaintiff's manufacturing specifications and drawings for such plugs in several of the features enumerated in fact finding number (5). The semi-petticoat end of the insulator has been completely destroyed in thirty-three of the forty plugs and partially destroyed in the other seven; the relation of the side wire to the center wire is wrong in all forty plugs; a substantial portion of the insulating material has been removed from the firing end of each of the forty plugs; of the 160 dimensions (4 for each plug) specified as Nos. 4, 5, 6 and 7 in fact finding No. (5) only 49 comply with the drawings and specifications under which said plugs were manufactured by plaintiff, and in none of said plugs do all of said dimensions comply with plaintiff's drawings and specifications. 1567 1568

12. In many of defendants' plugs in evidence as Exhibits 1, 2, 3 and 4 the center electrode is more than 1/32 of an inch shorter than it was when said plugs were manufactured and sold by plaintiff.

13. Shortening the center electrode in a spark plug changes the location of the spark which ignites the charge of fuel in the motor cylinder and affects the heat range of the plug and the burning of the fuel. 1569

14. Removal of a portion of the insulating material from the firing end of a spark plug adversely affects the heat range of the plug.

15. A patented feature embodied in large numbers of Champion plugs, including Champion No. 7 plugs, as

1570 manufactured and sold by plaintiff, and which defendants treat and sell as aforesaid, is that of plaintiff's patent No. 1,852,265 (Plaintiff's Exhibit 20), relating to the shape of the firing end of the insulator and for which plaintiff claims important advantages in heat control and regulation between the several portions of the spark plug core. Thirty-one of defendants' plugs in evidence as Exhibits 1, 2, 3 and 4 originally embodied this patented feature, and in each of them the configuration of the firing end of the insulator has been so changed as to destroy or materially impair this patented feature.

1571 16. By reason of the changes and alterations which have been made in defendants' plugs since they were manufactured and sold by plaintiff they have ceased to have a number of the functional and mechanical features which characterize new Champion spark plugs and cannot truthfully be referred to as Champion plugs as that term is used by plaintiff and known to the motoring public nor as Champion plugs of the type number marked thereon by plaintiff.

17. During the past twenty years plaintiff has packed a large part of its Champion spark plugs for sale to the
1572 public in individual cartons like or similar to Plaintiff's Exhibit 6 on which have been printed the words "Guaranteed Dependable", and has packed ten of said individual cartons in boxes or containers like or similiar to Plaintiff's Exhibit 7.

18. Defendants pack their said plugs for sale to the public in cartons and containers like those forming parts of Plaintiff's Exhibits 1, 2, 3 and 4, on which they print or stamp the name "Champion" and plaintiff's original

type numbers for said plugs, and the words "Guaranteed 1573
Dependable".

19. Defendants sell said spark plugs so treated and packed to garages, dealers and others, still bearing plaintiff's original trade-mark and type-marks, and they are resold to motorists and others as and for used and repaired Champion plugs of the types marked thereon by plaintiff.

20. Defendants do not print their business name or address on the cartons or containers in which they pack their plugs for sale nor do they send out any advertising 1574
literature with their plugs, but they do supply their customers with plaintiff's size charts containing its recommendations for the use of new Champion plugs, which size charts defendants obtain and so use without plaintiff's knowledge or consent.

21. Plaintiff's trade-mark and type marks can be readily and cheaply removed from the insulators of its spark plugs without damage to the plugs or injury to employees who do the work, and defendants have removed said trade-mark from some of their shipments to foreign countries. 1575

22. For a number of years prior to January 1, 1942, the price of plaintiff's Champion spark plugs to dealers purchasing approximately 1,000 plugs per year was 37¢ each, and the price to dealers purchasing in boxes of ten (10) plugs was 41¢ each. Since January 1, 1942, the prices of plaintiff's plugs to dealers have been increased a few cents per plug over the above figures.

1576 23. Defendants sell their said repaired plugs of plaintiff's original manufacture in the second hand market at retail over the counter in lots of ten at 20¢ each.

CONCLUSIONS OF LAW.

1. Plaintiff is the sole owner of the entire right, title and interest in and to the trade-mark "Champion" for Spark Plugs and to the registration thereof in the United States Patent Office, Certificate No. 92,950, dated August 12, 1913, and renewed April 11, 1933, together with all claims for damages and profits on account of infringements thereof, and said trade-mark and the registration
1577 and renewal thereof are good and valid in law.

2. Upon the evidence in the case and the foregoing findings of fact the court concludes that the defendants have infringed plaintiff's registered trade-mark No. 92,950.

3. Defendants have a right to acquire used and discarded spark plugs of plaintiff's manufacture, to prepare the same for resale and further use, and then to resell them to the public; but defendants acquire only the physical property in such spark plugs and do not acquire any
1578 right in said trade-mark or in the good will which it symbolizes, which remain the exclusive property of the plaintiff.

4. Defendants' plugs of plaintiff's original manufacture have been so changed and altered since they were sold by plaintiff that they no longer embody a number of distinctive mechanical and functional features which characterize new Champion spark plugs and are, in fact, no longer Champion spark plugs as that term is used by plaintiff and known to the motoring public and cannot

truthfully be referred to as Champion spark plugs nor as 1579
Champion spark plugs of the type number marked thereon by plaintiff when they were manufactured.

5. Before selling or offering for sale any used spark plug of plaintiff's original manufacture defendants shall (a) completely remove therefrom plaintiff's trade-mark and type marks, (b) paint the metal shell and bushing thereof some distinctive color, such as red, orange or aluminum, and (c) permanently indent the word "Used" or "Repaired" in the hex portion of each plug and fill the indentations with paint of a color distinct from the painted shell. 1580

6. Under no circumstances shall defendants print, stamp or otherwise apply the word "Champion" or any abbreviation thereof, or plaintiff's type number or numbers, on the cartons or containers for their plugs or in any advertising matter relating thereto; nor shall defendants use plaintiff's corporate name or the word "Champion" or any abbreviation thereof, or plaintiff's type number or numbers, in selling or promoting sales of their spark plugs other than in the body of a truthful explanatory statement as to the origin of the plugs and in which said name or word does not stand out more prominently than does the rest of said statement, except that the name of plaintiff may be in slightly larger type, and said statement shall be accompanied by defendants' business name and address, such name to be in more prominent type than the rest of said statement. 1581

7. In carrying on their said business defendants shall give full and effective notice to the public as to their business name and address and that their used and

1582 altered spark plugs of plaintiff's original manufacture are not new spark plugs.

8. The defendants are to make it appear to purchasers and prospective purchasers that the spark plugs offered by them are their own plugs sponsored by themselves and not sponsored by the plaintiff.

July 2, 1945.

(Sgd) MORTIMER W. BYERS,
District Judge.

1583

1584

IN THE UNITED STATES DISTRICT COURT

FOR THE EASTERN DISTRICT OF NEW YORK

CHAMPION SPARK PLUG COMPANY, a corporation,

Plaintiff,

vs.

PETER SANDERS, SAMUEL SANDERS and HARRY SANDERS, doing business as THE PERFECT RECONDITION SPARK PLUG COMPANY,

Defendants.

CIVIL ACTION NO. 3767

DECREE

This cause having come on for final hearing on the pleadings and proofs and having been fully argued by counsel for all parties both orally and on briefs, and the Court being fully advised in the premises and having filed its Findings of Fact and Conclusions of Law, it is hereby ORDERED, ADJUDGED AND DECREED as follows:

1. That plaintiff is the owner of the entire right, title and interest in and to the trade-mark CHAMPION for spark plugs and the Certificate of Registration thereof in the United States Patent Office No. 92,950, dated August 12, 1913, and renewed April 11, 1933, together with all claims for profits and damages for infringements thereof.

2. That defendants, PETER SANDERS, SAMUEL SANDERS and HARRY SANDERS, and each of them, have infringed said registered trade-mark No. 92,950 and on the rights of plaintiff thereunder.

3. That defendants, PETER SANDERS, SAMUEL SANDERS and HARRY SANDERS, their agents, attorneys, salesmen, employees, servants, privies and confederates, and each of them, be and they are hereby perpetually enjoined

(a) from selling or offering for sale, or delivering to others for sale, any used spark plug of plain-

tiff's original manufacture which has been "repaired", "reconditioned" or otherwise treated to improve its appearance or usefulness, unless and until

(1) all trade-marks, trade-names, type marks and style marks have been completely removed therefrom;

(2) the metal shell of one-piece plugs and the metal shell and bushing nut of two-piece plugs have been completely covered with durable dark gray or brown or orange or green paint or lacquer, such as Duco;

(3) the word "REPAIRED", all in capital letters, has been stamped and impressed into one face of the hex portion of the metal shell in a size as large as said face will permit and of a depth sufficient to enable such indentations to retain enough white paint when the surplus white paint has been wiped from the surface, to distinctly display each letter of said work in white, and the indentations have been filled with a heavy white paint.

(b) from selling or offering for sale, or delivering to others for sale, any used spark plug of plaintiff's original manufacture which has been "repaired", "reconditioned" or otherwise treated to improve its appearance or usefulness, in a carton, container, wrapper or holder on which the name CHAMPION or any abbreviation or imitation thereof, or any type or style mark of plaintiff, is printed, stamped or otherwise displayed; and from using plaintiff's name or trade-mark, or any abbreviation or imitation thereof, in selling or advertising for sale any such spark plug; provided that defendants may affix to the cartons and containers in which they pack their said spark plugs for sale the following legend:

"Used spark plug(s) originally made by Champion Spark Plug Company repaired and made fit for use up to 10,000 miles by Perfect Recondition Spark Plug Co., 1133 Bedford Avenue, Brooklyn, N. Y."

the name and address of the defendants to be larger and more prominent than the legend itself, and the name of plaintiff may be in slightly larger type than the rest of the body of the legend.

~~4. That plaintiff recover from the defendants the profits which have accrued to them by reason of their said acts of trade mark infringement, in accordance with the provisions of Section 89, Title 15 of the United States Code, and that the case be referred to a Special Master to take an account of such profits and report the same to the Court.~~

4. That the motion of PETER SANDERS for dismissal of the complaint as to him be and the same is hereby dismissed.

5. That jurisdiction of this cause be and the same is hereby retained by this Court for ~~further~~ hearing on the subject of unfair competition should additional facts be presented.

6. That neither party shall recover costs.

Mortimer W. Byers
United States District Judge.

New York, N. Y.
~~July~~ Aug. , 1945.

Perpetual Injunction.

1597

IN THE UNITED STATES DISTRICT COURT,

FOR THE EASTERN DISTRICT OF NEW YORK.

—o—

[SAME TITLE]

—o—

The President of the United States of America

To Peter Sanders, Samuel Sanders and Harry Sanders, their agents, attorneys, salesmen, employees, servants, 1598
privies and confederates, and each of them, Greeting:

WHEREAS, by Decree entered herein on or about the 1st day of September, 1945, it appears that plaintiff is the owner of the entire right, title and interest in and to the trade-mark Champion for spark plugs and the Certificate of Registration thereof in the United States Patent Office No. 92,950, dated August 12, 1913, and renewed April 11, 1933, together with all claims for profits and damages for infringements thereof, and that the defendants, and each of them, have infringed said registered trade-mark No. 92,950 and on the rights of plaintiff thereunder; and by 1599
said Decree it was ordered that you, and each of you, be perpetually enjoined;

NOW, THEREFORE, we do hereby command and strictly enjoin you, the said Peter Sanders, Samuel Sanders and Harry Sanders, your agents, attorneys, salesmen, employees, servants, privies and confederates, and each of you

(a) from selling or offering for sale, or delivering to others for sale, any used spark plug of plaintiff's original

1600 manufacture which has been "repaired", "reconditioned" or otherwise treated to improve its appearance or usefulness, unless and until

(1) all trade-marks, trade-names, type marks and style marks have been completely removed therefrom;

(2) the metal shell of one-piece plugs and the metal shell and bushing nut of two-piece plugs have been completely covered with durable gray or brown or orange or green paint or lacquer, such as Duco;

1601 (3) the word "REPAIRED", all in capital letters, has been stamped and impressed into one face of the hex portion of the metal shell in a size as large as said face will permit and of a depth sufficient to enable such indentations to retain enough white paint when the surplus white paint has been wiped from the surface, to distinctly display each letter of said word in white, and the indentations have been filled with a heavy white paint.

(b) from selling or offering for sale, or delivering to others for sale, any used spark plug of plaintiff's original manufacture which has been "repaired", "reconditioned" 1602 or otherwise treated to improve its appearance or usefulness, in a carton, container, wrapper or holder on which the name Champion or any abbreviation or imitation thereof, or any type or style mark of plaintiff, is printed, stamped or otherwise displayed; and from using plaintiff's name or trade-mark, or any abbreviation or imitation thereof, in selling or advertising for sale any such spark plug; provided that defendants may affix to the cartons and containers in which they pack their said spark plugs for sale the following legend:

"Used spark plug(s) originally made by Champion Spark Plug Company repaired and made fit for use up to 10,000 miles by Perfect Recondition Spark Plug Co., 1133 Bedford Avenue, Brooklyn, N. Y." 1133

the name and address of the defendants to be larger and more prominent than the legend itself, and the name of plaintiff may be in slightly larger type than the rest of the body of the legend.

which commands and injunctions you are respectively required to observe and obey. 1604

Hereof fail not under penalty of the law thence ensuing.

WITNESS THE HONORABLE ROBERT A. INCH, Judge of the United States District Court for the Eastern District of New York this 21st day of September, One Thousand Nine Hundred and Forty-five, in the Year of Independence of the United States of America, the One Hundred and Seventieth.

PERCY B. GILKES,
Clerk.

by SIDNEY R. FUBY, 1605
Deputy Clerk.

(Seal)

Defendants' Motion for New Trial.

1606

UNITED STATES DISTRICT COURT,

EASTERN DISTRICT OF NEW YORK:

[SAME TITLE]

SIRS:

Please take notice that on the pleadings and record on file herein, and on the annexed affidavits of John Wilson
1607 Hood and Samuel Sanders, both verified October 27, 1945, and the annexed affidavit of J. F. Reich, verified October 25, 1945, the undersigned will move this court at a Motion Term thereof, to be held at the courthouse, Federal Building, Washington St., Borough of Brooklyn, City of New York, on the 31st day of October, 1945, at 10:30 o'clock in the forenoon of that day, or as soon thereafter as counsel can be heard, for an order, pursuant to Rule 59(b) of the Rules of Civil Procedure, and Rule 26 of the Civil Rules of this court, for an order granting leave of court to the defendants to move for a partial new trial herein and
1608 for leave to introduce additional evidence, and upon such leave being granted, for a further order granting the defendants such partial new trial and leave to introduce additional evidence, and upon such further order for a partial new trial being granted, for an order vacating the decree and permanent injunction herein, and granting leave to reargue the case upon the taking of such additional evidence, or, in the alternative, granting the defendants a reargument of this case upon the present record, upon the grounds set forth in the annexed affidavit of John Wilson

Hood; and granting to the defendants such other and fur- 1609
ther relief as may be just and proper.

Dated, New York, October 27, 1945.

Yours, etc.,

JOHN WILSON HOOD
JOHN WILSON HOOD,
Attorney for Defendants,
261 Broadway,
New York 7, N. Y.

1610

Affidavit of John Wilson Hood.

UNITED STATES DISTRICT COURT,

EASTERN DISTRICT OF NEW YORK.

[SAME TITLE]

1611

STATE OF NEW YORK, }
COUNTY OF NEW YORK. } ss.:

JOHN WILSON HOOD, being duly sworn, deposes and says: I am the attorney for the defendants.

1. I ask for reargument of this case upon the following grounds:

(a) The Court has misconceived the defendant's argument. The decision indicates that the Court thought that

1612 the implied license argued for by defendant was one implied in fact, and based upon the sale of the plug and the reconditioning machines. Defendant's actual argument is that this license is one implied in law, and as such, founded in public policy. Defendant's argument is that the plaintiff, as the mere manufacturer of a trademarked article, and beneficiary of no statutory monopoly, has no greater rights against a second-hand dealer than the patentee of an invention, who has conferred a benefit upon society and received a limited monopoly as his reward. The rule of patent cases that the second hand dealer may repair but not reconstruct (replace more than 50% with new parts)
1613 is therefore the limit of a trade mark owner's rights, and sound public policy requires that a trade mark owner's monopoly be not extended to articles merely used and repaired, after he had parted with the possession of the article, and that the second-hand man be deemed to have a license implied in law to repair and sell his own property with the marks on it that the original manufacturer, and not the second-hand dealer, has placed thereon.

(b) The Court has overlooked, in its decision, the fact that the plaintiff's claims, and the present decision, is contrary to the interest of consumers, which is the paramount
1614 interest in this litigation, according to the concurring opinion of Judge Frank of this Circuit in the case of *Standard Brands Co.* v. *Smidler*, decided Aug. 10, 1945, and reported at 66 U. S: P. Q. 337, in which he made the following observations:

> "I use the word 'monopoly' advisedly, because basic in the consideration of cases like this is the fact that Judicial protection of any trade name necessarily involves, a legalized monopoly which

does not—like patents, copyrights or public monopolies—rest upon any statute but is entirely judge-made * * * But in the early cases of that kind the judges scarcely perceived that they were not adhering to the rule that *consumer welfare is paramount* * * *. They failed to see that the doctrine of so-called 'unfair competition' is really the doctrine of 'unfair intrusion on a monopoly!' Had they done so, they would squarely have faced the question of the value to consumers of such a judge-made monopoly * * * But the conventional assumption that trade-name protection adds, in direct fashion, to consumer's economic welfare, has not yet been proved to be true in fact * * * A trade name will still be protected against 'unfair' practice, even if these practices mislead consumers to their immediate pecuniary advantage. But emphasis on the exceptional nature of the monopoly-creating judge-made trade name doctrine stimulated increasing judicial caution in its application. The courts, (expressly or tacitly) insisted that, more adequately than theretofore, consideration must be given to the overall policy of not unduly hampering competition * * * the courts, having contrived the doctrine which created trade name monopolies, have wisely re-examined the assumptions lying at the foundation of that doctrine. 1615 1616 1617

3. That re-examination, as I shall later indicate, has already affected the rulings applicable to cases like that before us here, and, I think, should affect them further."

This decision came down after the decision in the present case was filed in the Clerk's office. Here the evidence

1618 shows that the defendants put on the market a good reconditioned spark plug at about one-third of the cost of a new one, and that this reconditioned plug is in demand with experienced and sophisticated buyers. A decision should not stand herein which will frustrate the legitimate wants of such consumers, drive reconditioners of spark plugs out of business, and cause the reconditioned spark plug to disappear from the market, and force consumers to pay the plaintiff's extortionate consumer prices, shown in the annexed affidavit of Samuel Sanders to have been thirteen times the price charged to automobile manufacturers. The Court has overlooked the recent decisions of the Supreme
1619 Court in patent cases, holding that in applications to obtain a monopoly advantage the paramount consideration is the way that public interest has been affected. This element of the case, that the plaintiff's claims are contrary to consumer interest, and contrary to the public policy of the United States, has been overlooked by the Court and has not been decided. A ruling on this paramount question is imperative before the rights of the parties can be fully adjudicated.

(c) The Court has overlooked the long line of de-
1620 cisions, extending from at least the year 1879 down to the present day, holding that numerals, letters, or symbols used as style, grade, or class marks, form no part of the trade mark and are not the subject of exclusive appropriation. That part of the decision which requires the type marks to be taken off of the plugs violates this line of decisions.

2. I support the application of the defendants to take additional testimony and for a partial new trial, to show the facts set forth in the affidavit of Samuel Sanders, filed

herewith. I and the defendants have proceeded with due 1621
diligence to obtain evidence of such facts. The search has been difficult. The evidence has been found scattered over the United States, and some of it concerns matters that happened years ago and on which witnesses were dead and it was most difficult to obtain reliable information. I was delayed by the necessity of consulting an attorney with the Anti-Trust Division of the Department of Justice to see what action might be taken in this court, which I had to know before preparing this application, and due to his preoccupation with other matters it was not until about the 12th of October that I was finally able to reach a final 1622
consultation with him, so that I was free to proceed. It then became necessary to obtain information from other reconditioners, which came, one in the form of an affidavit, and the other in the form of an attorney's letter, yesterday and today, respectively. Upon receipt of this data, I prepared the motion papers immediately, staying at the office until late at night to finish them. The defendants have therefore proceeded with due diligence. Under the terms of the decision the case is held open for the purpose of adding testimony by the plaintiff, and for that additional reason it is now obvious equality and justice that the defendants be permitted to add the testimony and evidence 1623
that they have only recently managed to acquire.

JOHN WILSON HOOD.

(Sworn to by John Wilson Hood, October 27th, 1945.)

Affidavit of Samuel Sanders.

1624

UNITED STATES DISTRICT COURT,

EASTERN DISTRICT OF NEW YORK.

—o—

[SAME TITLE]

—o—

STATE OF NEW YORK,
COUNTY OF NEW YORK. } ss.:

1625

SAMUEL SANDERS, being duly sworn, deposes and says: I am one of the defendants herein, making this motion affidavit, on behalf of the application of all defendants for leave to introduce additional testimony and for a partial new trial, and for reargument thereafter, or in the alternative for reargument on the present record.

While the Court was in process of deciding the case and signing the decree, the defendants and their attorney were engaged in obtaining additional evidence. Since the trial was terminated, the defendants have obtained evidence of the following:

1626

1. The plaintiff does not have a validly registered trade mark. The Patent Office records, and the photostat of the application offered in evidence by the plaintiff herein, show that the registered mark is the mere word Champion in plain block lettering. On October 3, 1945, defendants' attorney received in the mail, as shown by the letter from Thomas G. Long, copy of which is annexed hereto as Exhibit A, confirmation of the suspicion that the word Champion was really the surname of Albert Champion. Such registration being illegal in plain block lettering

under the Trade Mark Act, the plaintiff is relegated to his rights at common law, whereas the present case and the others that the plaintiff has won assumed that the plaintiff had a valid registered trade mark. The defendants would like to present the foregoing evidence and take testimony of the plaintiff's officials to prove this point. 1627

2. The type of relief granted, that the defendants should take off the trade and type marks from the plugs, makes it commercially impossible to market reconditioned spark plugs in such a condition, and is against the public interest that reconditioned spark plugs should be available to consumers, and that the plaintiff should not be permitted to monopolize the second-hand market in its plugs after it has parted with the ownership thereof. Personally, I have found it impossible to drum up any interest in dealers and consumers in Champion Spark Plugs with the trade marks and type marks removed, and as a result thereof, in order to earn my living and support my family, I have had to devote my time to another line of business, and I seldom visit the shop where the plugs were formerly reconditioned. My experience with the shipments of Champion plugs with paper tags on them, under the temporary injunction, was that there were no re-orders. At the present time no Champion plugs are being reconditioned at the shop, owing to the impossibility of selling them under the terms of the permanent injunction, although there is a stock there of over one hundred thousand used plugs that could be reconditioned and give consumers excellent service, could they be marketed. This is also the experience of other reconditioners against whom this type of injunction has been granted, as shown by the affidavit of J. F. Reich, verified October 25, 1945, and filed herewith, and the letter of B. E. Godfrey, dated October 1628 1629

1630 25, 1945, and annexed to this affidavit as Exhibit B, and made a part hereof. Thus the obtaining of this type of relief by the plaintiff, in the absence of any statute requiring it, eliminates the competition of the second-hand market and the discipline which this imposes upon the original manufacturer, restrains trade and promotes monopoly, and disregards the paramount consumer interest, all in contravention of the public policy of the United States. The defendants would therefor like to add the testimony to the foregoing effect of J. F. Reich, T. C. Elkins doing business as the W-C Mfg. Co. (Mr. Godfrey's client), and the experience of the undersigned. The defendants would also
1631 like to take the testimony of the plaintiff's officers to show that this result is not accidental, but planned, and is the result of a conspiracy to stamp out reconditioning by second-hand men, and to restrain trade. While the officers of the plaintiff did not appear at this trial, Charles L. Corwin, then assistant sales manager of the plaintiff, testified at the Federal Trade Commission hearing in Toledo in October, 1938, in which these defendants were respondents, with reference to the reconditioning of spark plugs at page 251 of that record:

1632 "A. I am interested to the extent that we have endeavored in every possible way to stop this practice."

The plaintiff is also, according to the brief of its attorney in the *Emener* case in Detroit, violating the anti-trust laws and the public policy of the United States by selling plugs for new equipment below cost, thereby freezing out competition and giving itself an unfair advantage in competing for replacement business. In said brief the lawyer said (p. 2 thereof):

"The above figures include sales for equipment as well as those for replacements. The latter are the only profitable sales, the present prices for equipment plugs averaging only about five cents per plug" (Rec., p. 107). 1633

Thus the plaintiff is not only violating the anti-trust laws but is charging the public unfair and monopoly prices, since the price to consumers at that time was 65¢ a plug, and is now 70¢ a plug. The plaintiff does not come into court with clean hands in the sale of its own new plugs and the exploitation of its trade mark, and the defendants would like to take the testimony of the plaintiff's officers to prove this point. The plaintiff's policy of restraining trade in its plugs is in keeping with the steady trend toward monopoly in the industry itself. In the following table the number of manufacturers of plugs is from Thomas' Directory, the number of plugs manufactured is from the Bureau of the Census, Department of Commerce, and the plaintiff's production is from one of the plaintiff's affidavits on the motion for temporary injunction, with the figures adjusted for a January to December year, instead of June to June, where that is necessary. 1634

Year	*No. Mfgs.*	*No. Plugs (000 Omitted)*	*Champion Plugs (000 Omitted)*	*Champ. Perc.*
1919	not avail.	67,914	20,170	30
1921	132	36,123	13,772	38
1923	144	not avail.		
1925	100	62,576	33,574	54
1927	93	60,157	30,860	51
1929	72	93,872	40,802	43
1931	64	61,390	28,241	46
1933	52	60,535	23,476	39
1935	54	87,051	36,432	42
1937	41	109,964	52,815	48
1939	49	118,404	50,167	42

1635

1636 The above figures gain significance when it is considered that the two chief competitors of the plaintiff are the A-C Spark Plug Company, a subsidiary of General Motors, and Electric Auto-Lite Company, a subsidiary of Chrysler corporation, and that A-C spark plugs are used as initial equipment in General Motors cars, and Autolite spark plugs are initial equipment in all Chrysler Corporation cars. In 1939 General Motors sold 44% of all new automobiles in the United States, Chrysler 24%, Ford 21%, and all other manufacturers together, 11%. Assuming that the average car buyer used as a replacement plug the make of plug he found in the car origi-
1637 nally, it is a reasonable estimate that two concerns, Champion and A-C, dominate the market with over 75% of the total sales of plugs, and three concerns out of 49, Champion, A-C, and Autolite, dominate the market with over 90% of the total sales of plugs. It is apparent that the production of plugs in this country is highly concentrated, and little opportunity is afforded the small manufacturer to distribute the plugs which he could make, although the manufacture of them is understood to be a simple operation. According to the Automotive News Almanac of July 1939, all new motor vehicles were equipped with either Champion, A-C, or Autolite plugs.
1638 This shows that three concerns out of 49 monopolize 100% of the sales for original equipment, and over 90% of the replacement business. The defendants would like to introduce the above evidence, relevant on the issue that the plaintiff's proceedings and claims are contrary to the public policy of the United States.

SAMUEL SANDERS.

(Sworn to by Samuel Sanders, October 27th, 1945.)

Exhibit A, Attached to Foregoing Affidavit.

BUTZEL, EAMAN, LONG, GUST & KENNEDY 1639
National Bank Building
Detroit 26

(names)
(names) (phone)

October 2nd, 1945

Mr. John Wilson Hood,
261 Broadway;
New York 7, New York.

Dear Sir:—

Replying to your letter of the first instant I was of counsel for the defendant in the case of *Champion Spark Plug Company* v. *Champion Ignition Company*, of which a preliminary motion is reported in 247 Fed. 200. 1640

The work "Champion" as used by each of the companies was taken from the surname of Albert Champion. He was in the first instance connected with the predecessor of the plaintiff and because of such connection and his work in the development of spark plugs his name was taken in the name of the company. Then when he left that company and organized another company to make spark plugs he called it the Champion Ignition Company.

Albert Champion before the days of the automobile was a widely known bicycle rider and was the speed champion of France. 1641

The matter is back a good many years now and I do not have any more definite recollection nor apparently do I have any records of the matter. The pleadings and principal records in the case were all kept by Mr. Belknap's older brother who died some years ago.

Very truly yours,

THOMAS G. LONG

2/epj

Exhibit B, Attached to Foregoing Affidavit.

1642

McGOWN, McGOWN, GODFREY & LOGAN
Law Offices
2111 Forth Worth National Bank Building
Forth Worth 2, Texas
(Names) Phone 3-3488

October 25, 1945

Mr. John Wilson Hood
Attorney
261 Broadway
New York, N. Y.

1643

Re: Champion Spark Plug Company

vs.

Tiffie C. Elkins

Dear Sir:

In response to your letter of October 23 we beg leave to advise that there is pending in the United States Federal District Court for the Northern District of Texas a suit for injunction to enjoin the infringement of patent and copyright laws and for damages by Champion Spark
1644 Plug Company against T. C. Elkins doing business as W-C Manufacturing Company.

At the hearing upon the application for temporary injunction the defendant, T. C. Elkins, agreed to stamp the word "repaired" on future Champion Spark plugs reconditioned by the W-C Manufacturing Company; to limit the statement on the cartons and containers in which said plugs were packed for shipment to a truthful statement of the origin of the plugs, such as "This plug was originally a Champion J-10 spark plug which has been recon-

ditioned by W-C Manufacturing Company." The court 1645
was also assured that the sales of such plugs would be made in such manner as to prevent them to be sold to the purchasing public as new Champion plugs.

In light of such facts, the court refused the temporary writ and the case has not been processed on the hearing on permanent injunction and for damages.

Shortly after this hearing our client, W-C Manufacturing Company, engaged chemists to prepare a formula that would remove the word "Champion" and the type mark from the porcelain of the plugs. The word "repaired" was also stamped on the hex of the plug and the 1646
metal part of said plug was cadmium plated, thus giving it a different color than the original steel or iron effect of the new Champion spark plug. A chemical was found to remove the name "Champion" and the type mark. A number of plugs were then processed and sold with the work "Champion" and the type mark removed from the porcelain of the plug. This chemical process did not prove successful. It was found that a chemical sufficient to remove the paint reflecting the name and type mark damaged the plug to the extent that the plug was not effective.

It was also found that, while customers were perfectly 1647
willing to buy a reconditioned Champion plug, with the name "Champion" removed, the plugs could not be sold. The sales of W-C Manufacturing Company of the plugs without the name Champion and type mark declined over seventy per cent in a short time. As a result client could not operate his business and could not continue to repair and recondition the used plugs from the income derived from such sales as were found and he was forced to either discontinue the practice of removing the name Champion and the type mark or to discontinue his business.

Exhibit B, Attached to Foregoing Affidavit.

1648 We have amended our answer in light of this experience and have now taken the position before the court here that the stamping of the work "repaired" on the hex of the plug and the nickel plating of the metal part, with an adequate statement of the history and origin of the plug so changed the plugs in design and appearance that they can no longer be sold to the public as a new Champion plug, and are insisting that the name "Champion" and type mark remain on same. What the outcome will be we do not know.

It is a positive fact that the removal of the name Champion and type mark from the plug destroyed its
1649 marketability and any business engaged in reconditioning spark plugs could not survive if it had to remove the name. There is just as much reason why one dealing in used cars should be required to remove the name, type and model of the car as there is to do so in reconditioning Champion spark plugs.

Any affidavits you might require to support statements herein contained will be gladly made upon request.

Yours very truly,

B. E. GODFREY

1650 BEG/hc

Affidavit of J. F. Reich.

1651

UNITED STATES DISTRICT COURT,

EASTERN DISTRICT OF NEW YORK.

[SAME TITLE]

STATE OF MISSOURI,
COUNTY OF JACKSON. } ss.:

1652

J. F. REICH, being duly sworn, deposes and says: I am the J. F. Reich who was defendant in a suit by the plaintiff herein, reported at 24 Fed. Supp. 945, and on appeal at 121 Fed. (2) 773. I was in the business of reconditioning spark plugs for many years and I am personally very familiar with the processing and selling problems involved in such a business.

From my personal experience, and from all my inquiries of other reconditioners of spark plugs, I can state with confidence that it is not commercially feasible to sell reconditioned spark plugs with the trade marks and style marks removed. After I quit, upon losing the above mentioned suit, one John L. McFall, a shop forman of mine, tried to carry on the business under the trade name of McFall Engineering Company. He sold a sizable order of such plugs with the trade mark removed to the Western Auto Company, but that company found it impossible to market the plugs without the trade mark on them, and was compelled to close out the line at reduced prices. They are not reordering. One of my dealers, a man named Jones in Chicago, sold two thousand boxes of such name-

1653

1654 less and typeless plugs to a retailer in Cuba. The Cuban retailer found it impossible to market the plugs with the trade mark removed and returned them to Jones. Other instances could be cited. The general experience was that you couldn't get it through the heads of buyers *why* the trade mark was off and *why* the style or type mark was off. Every conceivable method of getting the idea across was tried without success, including putting the information on the box and in letters. Dealers would pay no attention to the necessarily long-winded explanation, order a shipment, and then return it.

1655 Structural changes are inevitable in a reconditioned spark plug as compared with the new plug. Everybody knows this. Wear due to use alone, without considering repair, can cause such changes, as it does in the case of a lead pencil or any other article whose use involves elimination of some part of the original structure. The practical effect of the plaintiff's program of obtaining injunctions against reconditioners on a trade mark theory, because of the structural changes in the second-hand article, is to destroy the reconditioning business and eliminate the competition of second-hand dealers, restrain trade in a legitimate article of commerce, and enable the plaintiff

1656 to monopolize trade in its second-hand plugs. I have inquired and found that other reconditioners against whom the plaintiff was successful in getting such injunctions experienced the same difficulties that I did, and many of them, if not all of them, are now out of business. However it may be theoretically conceivable to sell reconditioned spark plugs with the trade mark and type marks removed, it is not a commercially practicable business.

J. F. Reich.

(Sworn to by J. F. Reich, October 25th, 1945.)

Affidavit of T. C. Elkins.

1657

UNITED STATES DISTRICT COURT,

EASTERN DISTRICT OF NEW YORK.

[SAME TITLE]

STATE OF TEXAS, }
COUNTY OF TARRANT. } ss.:

1658

T. C. ELKINS, being duly sworn, deposes and says: I am and have been in the business of reconditioning spark plugs, under the trade name of W-C Manufacturing Company. The business has consisted of collecting used spark plugs, in need of cleaning and perhaps minor repairs, which had been discarded by the previous owners prior to the termination of the useful life of the plug. I then cleaned the deposits and other dirt and rust from the plugs, made minor repairs if necessary, and sold them as "reconditioned spark plugs", which is the correct and descriptive trade term for that article of commerce. The original trade names were left on the plugs, to assure the 1659
buyer of the origin of the materials, and the name of the original manufacturer, but the plugs were honestly sold by me as used and repaired articles, with the implication that their specifications were subject to such changes as might be expected from use and repair.

I became involved in litigation with the Champion Spark Plug Company, which claimed that the aforesaid activities constituted an infringement of their trade mark. By way of experimentation, and in the hope of relieving myself of annoying and expensive litigation, regardless

1660 of the merits of the case, I began removing the trade and type marks from the used Champion spark plugs with chemicals recommended by experts for the purpose. I soon found that this was commercially impractical for two reasons:

(a) The trade mark is affixed to a functional part of the device, to wit: the insulator. Any chemical strong enough to remove the marks was found to be strong enough to remove the protective glaze that served to prevent dirt from accumulating on the insulator, and this encouraged deposits which
1661 short-circuited the insulator. Furthermore, whatever may be the factory experience on removing the marks from plain insulators, it was found in practice that on *assembled* plugs the chemical used would seep onto and attack the sealing gaskets, so that the plug would leak and lose compression. In short, the use of the chemical on *assembled* plugs damaged them to the extent that they were not a satisfactory article of commerce.

(b) In spite of a previous active demand for reconditioned plugs, it was found that with the
1662 trade and type marks removed, the plugs could not be sold. Sales of reconditioned plugs without the trade and type marks declined over 70% in a short time, and I could not continue to repair and recondition the used plugs from the income derived from such sales as could be found. The practical effect of a requirement that the trade and type marks be removed, therefore, is to put the reconditioner out of business and cause the reconditioned spark plug to disappear from the market, and force all con-

sumers to deal with the original manufacturer and pay the price he chooses to fix. 1663

The present status of the suit against me in Texas is that, upon a showing by me that I stamp the word "repaired" on the plugs, and that on the containers I print a truthful statement of their origin and reconditioning, the temporary injunction sought, to compel me to remove the trade and type marks, has been refused by the Court. In view of the above experience, I have determined to resist the suit, as I can see no reason why the trade and type marks should be removed from a spark plug, when under the general customs of trade it does not have to be removed 1664 from mechanical articles merely because of the structural changes inevitable in use and repair.

T. C. Elkins.

(Sworn to by T. C. Elkins, November 6th, 1945.)

1665

Affidavit of S. Brooks Barron.

1666

UNITED STATES DISTRICT COURT,

EASTERN DISTRICT OF NEW YORK.

—o—

[SAME TITLE]

—o—

STATE OF MICHIGAN,
COUNTY OF WAYNE. } ss.:

1667

S. BROOKS BARRON being duly sworn deposes and says:

I am an attorney at law of the State of Michigan, actively practicing in Detroit for a number of years. I appeared as attorney for the defendant in the case and title of *Champion Spark Plug Company* v. *Emener* in the United States District Court for the Eastern District of Michigan, Southern Division. After the injunction was issued against the defendant in that case, he attempted to carry on his business of selling reconditioned spark plugs after removing the trade and type marks and otherwise complying with the injunction. Subsequently he told

1668

me that he found that the plugs were unsaleable with the trade and type marks removed, and that he was unable to operate his second-hand business in the manner required by the injunction in that case. A short time later, he discontinued entirely the business of reconditioned spark plugs. A few years later Mr. Emener died and his widow is no longer in the City, which is the reason I am making this affidavit instead of my former client.

S. BROOKS BARRON.

(Sworn to by S. Brooks Barron, November 10th, 1945.)

Affidavit of John Wilson Hood.

1669

UNITED STATES DISTRICT COURT,

EASTERN DISTRICT OF NEW YORK.

[SAME TITLE]

STATE OF NEW YORK,
COUNTY OF NEW YORK. } ss.:

1670

JOHN WILSON HOOD being duly sworn deposes and says:

I am the attorney for defendant herein. Inasmuch as the plaintiff seems to rest its opposition in the pending motions upon the claim that due diligence was not exercised to make this motion, it is thought advisable to furnish the Court with more detailed information on the subject.

As early as July 11th, 1945, I wrote the Anti-Trust Division of the Department of Justice about this case and at a suggestion of attorneys for the Department, on July 26th, 1945, I communicated the facts to two other attorneys in the Department in Washington. I received an 1671
acknowledgment from the attorney in charge of the Anti-Trust Division on July 30th, 1945, with a statement that I would hear from them further as soon as they had an opportunity to review the suit papers. I did not hear anything by August 10th, 1945, so on that date I wrote the Assistant Attorney General asking for an interview. The Assistant Attorney General wrote me on the 18th day of August, 1945 designating an attorney to discuss the record in the case and stating that an appointment would be available on August 27th, 1945. I acknowledged

1672 this letter on August 22nd, 1945 stating that I would be in Washington for the appointment on August 27th. On August 27th, 1945, I went to Washington and interviewed the Special Assistant and left the entire record and the case for him to examine. On that date, I also went to the Patent Office and examined the registration record of the plaintiff's trade mark and found that application had been filed about 1913 for the word "Champion" in plain block lettering. This was of interest for shortly after the trial, I had a long distance telephone conversation with the attorney in Philadelphia who had prevented the
1673 plaintiff from obtaining injunctions in two such suits, and we discussed the possibility that Champion was the name of the individual who had invented the plug.

I came back to New York and conferred with my clients on the subject and endeavored to get in touch with a man in New York who had once known Albert Champion and who might be able to clear up the question. To my disappointment, he was unable to furnish much information, stating that it was such a long time ago that his memory was not good, and the people who he might question were dead. To try to find out something about this, I wrote to the Secretary of State of Massachusetts on
1674 September 1st, 1945 to see whether Albert Champion was known as one of the incorporators of the plaintiff and received a reply in the negative on September 5th, 1945. On the same date, I wrote to the A. C. Spark Plug Company for information, but did not even receive an acknowledgment of the letter. On September 7th, 1945, I wrote to the Secretary of State of Michigan about the incorporation of the Champion Ignition Company as I had just discovered that this company had had litigation with the present plaintiff, and the name of Albert Champion was involved. The name of Albert Champion had appeared

in the Patent Office records when I examined them on 1675
August 27th, 1945, as assignor of certain spark plug patents, and I believe the assignee was the Champion Ignition Company.

The answer of the Michigan Corporation Division under date of September 12th, 1945 did not contain any vital information, so on September 15th, 1945, I wrote to the attorneys for the Champion Ignition Company as reported in 247 Fed. 200. They sent me a letter dated September 17th, 1945 saying that their records were destroyed and referred me to their associate Mr. Thomas G. Lang. I did not hear anything from the Anti-Trust Division by 1676
September 15th, so on that night, I wrote the Special Assistant another letter. I received a reply from him under date of September 25th, 1945 saying that he had not yet been able to look over the record nor prepare comments and hoped that the status of the case permitted further delay.

I contacted my clients and instructed them to write to the McFall Engineering Co. in Kansas City and offer them their entire stock of used plugs. They received a reply from Mr. Reich dated September 29th, 1945 making statements about the marketability of Champion Plugs without the trade and type marks removed, along the lines 1677
of his affidavit which was submitted with his moving papers. Thereupon, on October 8th, 1945, I wrote Mr. Reich stating that we would like to have an affidavit concerning the facts set forth in his letter. I received a reply from his lawyer dated October 10th, 1945 giving me various information and referring me to Mr. Godfrey in Texas, and stating that if the Court permitted it, he would be glad to furnish affidavit or other evidence from Kansas City fully establishing that such injunctions ruined the reconditioning business.

1678 On October 1st, 1945, I wrote to the aforesaid Mr. Thomas G. Lang to see if it was true that Albert Champion's surname was the actual source of the plaintiff's trade mark. On the same date, I wrote to the Clerk of the United States District Court in Detroit for similar information. I received a letter dated October 3rd, 1945 from the Clerk in Detroit and a follow up letter from the Clerk of the Eastern District in Bay City dated October 5th, 1945.

By this time, I was most anxious to know what, if anything, the Anti-Trust Division was doing, as I wanted
1679 to make this motion. I planned to go to Washington on about October 7th to get some kind of an answer from the Division. I telephoned the Special Assistant at his home the night before I was to leave to make sure there was no hitch in the appointment and was told that he had been so swamped with work he still had not finished reading the records. He said that he was coming to New York the following week and would discuss the matter with me then. I met him on October 11th, 1945 in New York and discussed the entire case. On the same date, I wrote the Bureau of Census and Procurement Division of the Treasury Department for further information. I
1680 received a reply from Mr. Lang in Detroit, a copy of which is annexed to the moving papers, confirming that Albert Champion's name was the source of the plaintiff's trade mark. I wrote Mr. Reich's lawyer on October 23rd, 1945, and the lawyer for the reconditioner in Texas on the same date about an affidavit for this motion. Mr. Godfrey in Texas wrote me under date of October 25th, 1945 and the affidavit from Mr. Reich arrived in New York at about the same time and I prepared the motion papers immediately. Even though the motion was filed, I continued working on the matter and sent Mr. Godfrey an actual

affidavit based on his letter, with instructions to change in 1681
any way if found necessary. Under date of November 3rd, 1945, I also wrote Emener's lawyer in Detroit to see if there was any available affidavit to show, as my client stated the fact to be, that Emener was put out of the business by the injunction. As a result of this correspondence back and forth, Mr. Baron made his personal affidavit now on for such file. The Court will see from the foregoing that I have not been asleep in this matter and that I have been diligent in proceeding with the development of the facts necessary on this motion.

Many if not all of the facts sought to be shown now 1682
have been discovered since the trial. At the trial I had no proof that the plaintiff's trade mark was the surname of an individual, and I knew nothing about the case of Champion Spark Plug Company vs. Champion Ignition Company. At the trial the plaintiff's affidavits from Kansas City had lulled me and my clients into the erroneous belief that McFall Engineering Company was doing a prosperous business in Champion Spark Plugs with the trade and type marks removed. At the trial I knew nothing about the case in Texas or Mr. Elkin's experience with the attempted marketing of blank plugs. I did not know what my client's experience was going to be. Now 1683
that these facts are available, I should like to put them in the record. In view of the public interest involved in this case, which transcends the bickering of the parties, I feel that all doubts should be resolved in favor of permitting these facts to be placed in the record so that the Appellate Courts will have full information upon which to base their ultimate viewpoint.

JOHN WILSON HOOD.

(Sworn to by John Wilson Hood, November 19th, 1945.)

1684 NOTE: No answering affidavits were filed by plaintiff; but plaintiff's brief on the motion referred to the previously filed affidavits of Corwin, Edwards, Kemper, W. E. Sanders, and Wilber Owen, appearing at pages 448-458 of the record, which opposed Reich's first affidavit, which appears at page 43 of the record.

Opinion of the District Court on Motion for New Trial.

1685 UNITED STATES DISTRICT COURT,

EASTERN DISTRICT OF NEW YORK.

—o—

[SAME TITLE]

—o—

BYERS, *D. J.*:

This is a defendants' motion for leave to move for a "partial new trial" and for leave to introduce additional evidence, and to reargue, all pursuant to Rule 59(b), re-
1686 turnable October 31, 1945, the decree having been filed September 1, 1945. The motion was submitted November 13th.

The so-called newly discovered evidence is to the effect that the plaintiff's trade-mark "Champion" was illegally registered by the U. S. Patent Office. This case has been pending too long for the court to be impressed by the statement that this is new evidence which could not have been offered at final hearing if any degree of diligence whatever had been brought to bear. Incidentally, the val-

idity of the trade-mark seems to have been necessarily 1687
involved in the case of *Champion Spark Plug Co.* v. *Champion* (1938), 23 Fed. Supp. 638.

More important on the merits, however, is the consideration that registration of a trade-mark is a mere formality; validity and registrability are not synonymous. Whether these defendants have the right to employ plaintiff's trade-mark under the circumstances shown does not depend upon whether it was properly registered.

The other matters advanced are either argumentative, *i. e.*, that the decision was erroneous, or stale, *i. e.*, that sound public policy requires that the plaintiff should be denied relief because its position in the industry is one of 1688
great prominence and the defendant is being deprived of an opportunity to sell second-hand spark plugs of plaintiff's original manufacture which of necessity no longer possess the dimensions or characteristics imparted to them by plaintiff, unle the defendants are permitted to retain on the repaired plugs, the name and type numbers which proclaim adherence to the plaintiff's specifications. So much is not new.

If the court has mistaken the legal principles which should govern the decision of this controversy, the remedy lies in appeal.

1689

The affidavit which asserts that one Elkins has been unable to remove the trade-mark and type numbers from the porcelain of the plugs without injuriously affecting the latter, in no wise discredits the plaintiff's evidence on that subject at final hearing. No attempt was made to contradict or refute that evidence. Motion denied. Settle order.

M. W. B.,
U. S. D. J.

Order Denying Defendants' Motion for Leave to Move Pursuant to Rule 59(b) F. R. C. P.

1690

IN THE UNITED STATES DISTRICT COURT,

FOR THE EASTERN DISTRICT OF NEW YORK.

[SAME TITLE]

A motion having been made by the defendants for
1691 leave to move for a "partial new trial" and for leave to introduce additional evidence, and to reargue, all pursuant to Rule 59(b) F. R. C. P.; and briefs having been submitted by defendants in support of said motion and by plaintiff in opposition to said motion; and, after due deliberation, an opinion denying said motion having been handed down November 29, 1945, it is

ORDERED, that said motion be and the same is hereby denied.

Dated, December 4, 1945.

1692

MORTIMER W. BYERS,
United States District Judge.

Notice of Appeal.

1693

UNITED STATES DISTRICT COURT,

EASTERN DISTRICT OF NEW YORK.

—o—

[SAME TITLE]

—o—

Notice is hereby given that Peter Sanders, Samuel Sanders, and Harry Sanders, the defendants above-named hereby appeal to the Circuit Court of Appeals for the 1694
Second Circuit from the final judgment entered in this action in favor of the plaintiff and against the defendants on September 1st, 1945.

Dated, November 30th, 1945.

Yours, etc.,

JOHN WILSON HOOD,
Attorney for Defendants,
Office & P. O. Address,
261 Broadway, 1695
New York 7, N. Y.

(Filed, November 30th, 1945.)

Notice of Appeal.

1696

UNITED STATES DISTRICT COURT,

EASTERN DISTRICT OF NEW YORK.

—o—

[SAME TITLE]

—o—

Notice is hereby given that plaintiff, Champion Spark Plug Company, hereby appeals to the United States Circuit Court of Appeals for the Second Circuit from the final judgment entered herein on the first day of September, 1945, insofar as said judgment fails to award an accounting of damages and profits against defendants on account of defendants' infringements of plaintiff's trademark Champion; insofar as said judgment fails to find that defendants have committed acts of unfair competition against plaintiff and fails to enjoin defendants from further acts of unfair competition, and insofar as said judgment fails to award costs to plaintiff against defendants.

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1698

WILBER OWEN.
CARL F. SCHAFFER.
WARD, CROSBY & NEAL.

By JOSHUA WARD,
Attorneys for Plaintiff,
225 Broadway,
New York 7, N. Y.

November 30, 1945.
(Filed December 1, 1945, with cost bond.)

Stipulation as to Contents of Record on Appeal.

1699

IN THE

UNITED STATES DISTRICT COURT,

FOR THE EASTERN DISTRICT OF NEW YORK.

—o—

[SAME TITLE]

—o—

IT IS HEREBY STIPULATED AND AGREED by and between the attorneys for the respective parties, that the transcript 1700 of the record for purposes of appeal herein shall contain:

1. Bill of Complaint.

2. Answer.

3. Transcript of Record in question and answer form and stipulations as to certain other testimony, as agreed upon between the parties.

4. Plaintiff's Exhibits:

Exhibit No. 8—Dr. Foster's three reports on effect 1701 of acid on glaze.

Exhibit No. 13—Notice (Form 473) packed with plug set for Chevrolet.

Exhibit No. 13A—Notice (Form 474).

Exhibit No. 13B—Notice (Form 408).

Exhibit No. 13C—Notice (Form 543).

Exhibit No. 15A—Drawing No. "A.7.64,F" for No. 7 plug.

1702 Exhibit No. 21—Drawing No. "CV.7.64.A" for No. 7 Commercial A.

Exhibit No. 22—Copy of letter September 23, 1936 to The Perfect Recondition Spark Plug Co., attention Mr. Sam Sanders, from Champion Spark Plug Company.

Exhibit No. 23—Copy of letter November 20, 1936 to The Perfect Recondition Spark Plug Co., attention Mr. Sam Sanders, from Champion Spark Plug Company.

1703 Exhibit No. 24—Original letter December 1, 1936 to Champion Spark Plug Company from Louis J. Lefkowitz, attorney for The Perfect Recondition Spark Plug Co.

Exhibit No. 25—Copy of letter December 12, 1936 to Louis J. Lefkowitz, Esq. from Owen & Owen.

Exhibit No. 26—Copy of letter September 21, 1937 to Louis J. Lefkowitz, Esq. from Owen & Owen.

Exhibit No. 27—Copy of letter September 28, 1937 to The Perfect Recondition Spark Plug Co. from Champion Spark Plug Company.

1704

Exhibit No. 28—Copy of letter August 24, 1943 to Peter Sanders, Samuel Sanders and Harry Sanders, doing business as Perfect Reconditioning Spark Plug Co., and also as High Grade Spark Plug Service, from Owen & Owen, with Post Office registered return receipt attached.

Exhibit No. 29—Copy of Certificate of Registration No. 158,402, dated December 5, 1922 for Trade Mark "Champion X".

Stipulation as to Contents of Record on Appeal.

5. Defendants' Exhibits: 1705

Exhibit A—Chart.

Exhibit B—Diagram.

Exhibit F—Photograph

Exhibit G—Specimen order blank, letterhead and billhead.

Exhibit H—Sample of advertisement.

Exhibit I—Photograph.

6. Opinion of the District Court on Preliminary Injunction motion, June 15, 1944. 1706

7. Preliminary Injunction Order.

8. Order, on Consent, modifying Preliminary Injunction Order.

9. Opinion of the District Court on final hearing, July 2, 1945.

10. Findings of Fact and Conclusions of Law, July 2, 1945. 1707

11. Final Decree, August 28, 1945 (filed September 1, 1945).

12. Perpetual Injunction, September 21, 1945.

13. Motion by defendants for leave to move, etc., under Rule 59(b) F. R. C. P.

14. Opinion of District Court on motion for leave to move, etc.

1708 15. Order denying defendants' motion for leave to move, etc.

16. Notice of Appeal by defendants, filed November 30, 1945.

17. Notice of Appeal by plaintiff, filed December 1, 1945.

18. Stipulation as to contents of record.

19. Stipulation as to correctness of record.

1709

20. Stipulation extending time for filing record on appeal and docketing appeal to April 30, 1945.

21. Clerk's Certificate.

IT IS FURTHER STIPULATED that the documents and exhibits specified above shall constitute the transcript of the record for the purpose of appeal, and that the physical exhibits of the respective parties may be retained by counsel for said parties until recorded for hearing, the same to be subject to inspection by counsel at any time, and all of the original exhibits, both documentary and physical, to be produced by the respective parties in the Circuit Court of Appeals for use at the hearing.

1710

The following exhibits are to be considered as physical exhibits:

Plaintiff's Exhibits:

Exhibit No. 1—Carton containing 10 No. H10 plugs (separately boxed) purchased from defendants November 12, 1943.

Stipulation as to Contents of Record on Appeal.

Exhibit No. 2—Carton containing 10 No. 7 plugs purchased from defendants November 18, 1943. 1711

Exhibit No. 3—Carton containing 10 No. 7 plugs purchased from defendants November 15, 1943.

Exhibit No. 4—Carton containing 10 No. 7 plugs purchased from defendants November 12, 1943.

Exhibit No. 5—Carton containing Champion No. 7 plugs (corresponding to Bill of Complaint, Exhibit No. 1).

Exhibit No. 6—Champion carton (filed with Bill of Complaint, Exhibit No. 2). 1712

Exhibit No. 7—Champion carton (filed with Bill of Complaint, Exhibit No. 3).

Exhibit No. 9—Plug C-1 of Plaintiff's Exhibit No. 3, from which Mr. Royal removed trademark, etc., from porcelain in Court.

Exhibit No. 10—Large chart of one-piece Champion plug.

Exhibit No. 11—Large chart of two-piece Champion plug.

1713

Exhibit No. 12—Champion 1937 gap sheet.

Exhibit No. 12A—Champion 1945 gap sheet.

Exhibit No. 14—Catalog "Champion Spark Plugs for 1942-43-44" (corresponds to Bill of Complaint, Exhibit 6).

Exhibit No. 15—Drawing No. "H.10.64,A".

Exhibit No. 16—Mr. Sibley's report on plugs in Plaintiff's Exhibit 1 (Box A [corresponds to Bill of Complaint, Exhibits Nos. 15, 15A]).

1714 Exhibit No. 16A—Mr. Sibley's report on plugs in Plaintiff's Exhibit 2 (Box B [corresponds to Bill of Complaint, Exhibit No. 15B]).

Exhibit No. 16B—Mr. Sibley's report on plugs in Plaintiff's Exhibit 3 (Box C [corresponds to Bill of Complaint, Exhibit No. 15C]).

Exhibit No. 16C—Mr. Sibley's report on plugs in Plaintiff's Exhibit 4 (Box D [corresponds to Bill of Complaint, Exhibit 15D]).

Exhibit No. 17—Drawing No. "H.10.64,C".

1715 Exhibit No. 18—Chart showing changes from original dimensions, etc. (Bill of Complaint, Exhibit 13).

Exhibit No. 19—"Directions Champion Spark Plug Super Sales Service Unit Serial 300."

Exhibit No. 19A—"Champion Spark Plug Chart of Size Recommendations" (revised April 1, 1944).

Exhibit No. 19B—"Spark Plug Service Chart."

Exhibit No. 20—Copy of Rhode Patent No. 1,852,265, granted April 5, 1932, for Spark Plug (Bill of Complaint, Exhibit 12).

1716 Exhibit No. 30—Red carton, red box and plug, each marked "Champion X".

Defendants' Exhibits:

Exhibit C—Hand book.

Exhibit D—Size Chart.

Exhibit E—Size Chart.

Exhibit J—Photograph.

Stipulation as to Contents of Record on Appeal.

Exhibit K—Champion spark plug, box and wrapper. 1717

Exhibit L—Three packages of plugs.

Exhibits L-1, L-2 and L-3—Exhibit L remarked.

Exhibit M—Plug.

Exhibit N—Four plugs.

Exhibit O—Three spark plugs.

Exhibit P—New Champion spark plugs.

Exhibits P-1, P-2 and P-3—Exhibit P remarked.

March 26, 1946. 1718

WARD, CROSBY & NEAL,

By JOSHUA WARD,
A Member of said Firm,
Attorneys for Plaintiff,
225 Broadway,
New York 7, N. Y.

(Sgd.) JOHN WILSON HOOD,
Attorney for Defendants,
261 Broadway, 1719
New York 7, N. Y.

Notice of entry of order is hereby waived.
(Sgd.) JOHN WILSON HOOD,
Attorney for Defendants.

Stipulation as to Correctness of Record.

1720

IN THE

UNITED STATES DISTRICT COURT,

EASTERN DISTRICT OF NEW YORK.

—o—

[SAME TITLE]

—o—

1721 IT IS HEREBY STIPULATED that the foregoing constitutes a true copy of the Transcript of the Record of the said District Court in the above entitled cause as agreed on by the parties.

Dated: ....., 1946.

(Sgd.) JOSHUA. WARD,
WARD, CROSBY & NEAL,
225 Broadway,
New York 7, N. Y.,
Attorneys for Plaintiff.

1722

(Sgd.) JOHN WILSON HOOD,
261 Broadway,
New York 7, N. Y.,
Attorney for Defendants.

Stipulation.

1723

UNITED STATES CIRCUIT COURT OF APPEALS,

SECOND CIRCUIT.

—o—

[SAME TITLE]

—o—

IT IS HEREBY STIPULATED AND AGREED by and between the attorneys for the respective parties hereto, that the time for filing the record on appeal and docketing the appeal herein in the United States Circuit Court of Appeals is hereby extended to and including the 30th day of April, 1946. 1724

March 26, 1946.

WARD, CROSBY & NEAL,
(Sgd.) By JOSHUA WARD,
Attorneys for Plaintiff-Appellant,

(Sgd.) JOHN WILSON HOOD,
Attorney for Defendants-Appellees. 1725

It is so ordered:

March 27, 1946.

ALEXANDER M. BELL (Sgd.)
Clerk, United States Circuit
Court of Appeals.

Clerk's Certificate.

1726

IN THE

UNITED STATES DISTRICT COURT,

EASTERN DISTRICT OF NEW YORK.

[SAME TITLE]

1727 I, PERCY G. B. GILKES, Clerk of the District Court of the United States of America, in the Eastern District of New York, do hereby certify that the foregoing is a correct transcript of the record of the said District Court in the above entitled matter as agreed on by the parties.

In testimony whereof I have caused the seal of said Court to be hereunto affixed at the City of New York in the Eastern District of New York this ..... day of April, 1946, A. D., and of the Independence of the United States the 171st year.

1728 (SEAL)

(Signed) PERCY G. B. GILKES,
Clerk.

[fol. 577] UNITED STATES CIRCUIT COURT OF APPEALS FOR THE SECOND CIRCUIT, OCTOBER TERM, 1945

No. 298

Argued May 14, 1946. Decided July 10, 1946.

Docket No. 20222

CHAMPION SPARK PLUG COMPANY, Plaintiff-Appellant-Appellee,

against

PETER SANDERS, SAMUEL SANDERS and HARRY SANDERS, doing business as THE PERFECT RECONDITION SPARK PLUG COMPANY, Defendants-Appellants-Appellees

Before: Augustus N. Hand, Chase and Clark, Circuit Judges.

Appeal from the United States District Court for the Eastern District of New York

From a decree for the plaintiff enjoining the defendants from selling or offering for sale any used spark plugs of the plaintiff unless and until all trade-marks, trade-names, type-marks and style marks have been removed therefrom and other changes had been made thereon, the defendants appeal; and from such part of the decree as denied an [fol. 578] accounting to the plaintiff for acts of infringement of its trade-mark "Champion" and failed to find that the defendants had committed acts of unfair competition, the plaintiff appeals. Modified.

Ward Crosby & Neal and Owen & Owen, Attorneys for Plaintiff-Appellant-Appellee; Wilbur Owen, Carl F. Schaffer and Joshua Ward, Counsel.

John Wilson Hood, Attorney and counsel for Defendants-Appellants-Appellees.

AUGUSTUS N. HAND, Circuit Judge:

The Champion Spark Plug Company, a well known manufacturer of spark plugs for automobiles, brought this suit against the defendants charging infringement of its trade-

mark "Champion," and also unfair competition. The charge is based upon the resale by the defendants of used spark plugs of plaintiff's original manufacturer while still bearing the trade-mark "Champion" and also bearing plaintiff's type or style numbers indicating that the particular spark plug on which it was placed was specically adapted for automobiles of a certain make or for a use where it might have a heat range and other characteristics suited to the seasonal or other conditions under which the car was to be operated. The used spark plugs were obtained by the defendants from dealers in second-hand materials and after being sorted to eliminate plugs too badly worn or damaged for any further use were reconditioned. This reconditioning consisted of cleaning the plugs so as to remove burned and pitted portions of the center elec- [fol. 579] trodes, readjusting the side electrodes and where they were worn away welding them to new metal in order to provide proper gap spacing. It also involved cleaning and painting them so that they would look more attractive for selling.

The plaintiff's witness Sibley testified to variations in the "critical measurements" of the plugs between those reconditioned by the defendants and those originally manufactured. He testified that the end of the porcelain insulators—known as the "petticoat"—had generally been worn away by sand blasting when the plug was reconditioned so that the insulation did not extend as far over the center electrode as it originally did and the plug was thereby a cooler plug because more of it was exposed to the air than when the insulator was extended by the petticoat. He also said that where the ground electrode had been welded the faces of the two electrodes were not parallel and that each of these changes adversely affected the heat range of the reconditioned plugs. To the layman, the physical changes seem minute. Nevertheless the trial judge found them so important that he held the retention of the word "Champion" on the reconditioned plugs as misleading and held the defendants had thereby infringed the plaintiff's trade-mark. But no experimental proof was offered by Sibley, nor by anyone else, that any changes in heat range resulting from the shortening of the inner electrode or abrasions of the insulation, or from the welding of the ground electrode, were sufficient to impair the commercial use of defendants' plugs or even to render them of different

type numbers from those originally manufactured by the plaintiff. It is of course manifest that "Champion" plugs with shortened center electrodes, porcelain petticoats worn down, and ground electrodes somewhat altered by use are in operation on many cars and that the only difference [fol. 580] between them and the plugs reconditioned by defendants lies in the fact that the former have not been cleaned and slightly repaired or readjusted.

The defendant's witness Kasarjian, chief engineer of the Aero Spark Plug Company, and former ignition expert of the United States Navy, testified that he had examined and tested defendants' reconditioned plugs and that the slight differences between them and the plugs as originally manufactured did not substantially affect the heat range or spark position of any plug and its functioning. Kasarjian was the only witness who made practical tests and measurements. His testimony, in the absence of any proof that defendants' plugs have not worked satisfactorily, convinces us that the finding of the trial judge, that the reconditioned plugs were so altered that they could not properly be sold with the trade-mark "Champion" on them, was without substantial basis. Although the defendants' plugs which were before the court did not exactly correspond with the drawings and specifications of their original manufacture, that is true of all plugs after a relatively small amount of driving. The defendants' plugs answer the purpose for which they are purchased; otherwise they would not be in demand and this suit to prevent their use with the trade-mark indicating their first origin would hardly have been brought. Worn Champion plugs only differ slightly from their original condition and are being driven constantly in cases where no second-hand dealer has intervened to recondition them. Even if the reconditioned plugs were somewhat impaired, as the court below found, without, however, any experimental test to show it, nevertheless they were fitted to perform a useful service and no one wishing to buy them would have any ground for complaint if he knew that he was purchasing "used" Champion spark plugs, originally of certain style numbers.

[fol. 581] The court below found that the defendants had infringed the trade-mark "Champion" by selling reconditioned plugs having different functional features from those of the plaintiff. It for that reason enjoined the defendants from selling or offering for sale, or delivering to others for

sale, any spark plugs of the plaintiff's original manufacture which had been repaired, reconditioned, or otherwise treated to improve their appearance unless and until (1) all trade-marks, trade-names, type marks, and style marks should be completely removed therefrom; (2) the metal shell should be completely covered with durable grey, brown, orange, or green paint or lacquer such as Duco; (3) the word "repaired"—in capital letters—should be stamped into one face of the hex portion of the metal of a size as large as the face should permit and of a depth sufficient so that the indentations should retain enough white paint—when the white paint should have been wiped from the surface—distinctly to display each letter of the word "repaired" in white.

It was also found that the defendants had packed a large part of their reconditioned plugs in individual containers and cartons similar to plaintiff's on which the same words plaintiff uses—"guaranteed dependable"—were printed. In view of this the trial court decreed that the defendants affix to their cartons and containers the legend:

> "Used spark plug(s) originally made by Champion Spark Plug Company, repaired and made fit for use up to 10,000 miles by Perfect Process Spark Plug Co., 1133 Bedford Ave., Brooklyn, N. Y."

The decree also provided that the name and address of the defendants was to be larger and more prominent than the [fol. 582] legend itself, but that the name of the plaintiff might be slightly larger than the rest of the body of the legend.

In view of the findings as to misleading cartons and containers and as to to style numbers of reconditioned plugs which because not differentiated from those on the plaintiff's new plugs might mislead, the defendants not only infringed the trade-mark "Champion" in selling their plugs without sufficient notice that they were reconditioned and not new, but also were guilty of unfair competition.

While no proof was offered that the defendants' plugs were actually "palmed off" as new and original Champion plugs or that any purchaser was induced to buy those plugs relying on a representation that they were as serviceable as new ones, yet the kind of merchandising employed might enable dealers to "palm off" defendants' plugs as new ones

and thus to mislead the public. The decisions in *Federal Trade Commisison* v. *Winsted Co.*, 258 U. S. 483, 494; *Warner Co. v. Lilly Co* 265 U. S. 526, 530, and *G. H. Mumm Champagne Co.* v. *Eastern Wine Corp.*, 142 F. 2d 499 (C. C. A. 2), require a finding of unfair competition under such circumstances, irrespective of any proof of "palming off" by the defendants.

The defendants appeal from the decree on the ground that they have been guilty of no unlawful conduct and that the complaint against them should have been dismissed. The plaintiff appeals from such part of the decree as failed to find that the defendants had committed acts of unfair competition and denied an accounting.

The changes in the original spark plugs made by reconditioning them are slight to the eye and the evidence demonstrates that the defendants' articles work well, perform a useful service and that any changes in the heat range caused by wear or reconditioning are theoretical and in [fol. 583] practice unimportant. Aside from the slight changes in the insulation and the electrodes the defendants' plugs are completely of the plaintiff's well known manufacture. The defendants have a right to sell them as such provided they make known to the public that they are second-hand and reconditioned and that the defendants—and not the plaintiff—have repaired the original plugs. They are also entitled to sell them with the trade-mark "Champion" and the style marks indicating the engines to which they are fitted. The mark "Champion" shows their origin. The type numbers cover thread size and the size of the cylinder hole into which the plug is fitted. These sizes have not been affected by reconditioning. While the type numbers also cover the heat range, that varies with wear and there is no proof that because of this the defendants' reconditioned plugs required another type classification for practical purposes. Anyone buying a used plug would or should understand that it would not precisely correspond with the heat range of the original. Moreover, in any case, as Sibley's testimony indicates, the selection of precisely the right plug for a particular engine can only be accurately determined by the performance of the plug in use. Record, folios 698-99.

It is well settled by the authorities that the defendants have a right to sell an article manufactured by the plaintiff and to say that it has been so manufactured by retaining

the latter's trade-mark and style numbers to indicate the origin of the goods. If the article the defendants have sold was second-hand and they repaired it they could still retain the marks on the goods if they gave the public clearly to understand that the goods were not simply those of the original manufacturer but had been repaired by themselves. They have only to tell the truth, and the whole truth, and [fol. 584] to tell it plainly. It is, therefore, unimportant whether their reconditioned spark plugs were as good as the original ones, although they seem to have been adequate for the purposes for which they were to be used, but only whether the purchaser was apprized of the real facts.

In the case at bar the defendants were selling goods of a manufacturer of reputation. The repairs were minor ones. They had a right to gain any advantages derived from the good name of the manufacturer so long as they made it clear that the latter was not responsible for any lack of conformity to original standards due to wear and tear or to defendants' repairs. As Mr. Justice Holmes said in *Prestonettes, Inc.* v. *Coty*, 264 U. S. 359, 368, 369, when Prestonettes, Inc. had purchased Coty powder, added a binder, and sold the compact as Coty's powder "Packed and Fabricated by Prestonettes Inc.":

> "The defendant of course by virtue of its ownership had a right to compound or change what it bought, to divide either the original or the modified product, and to sell it so divided. The plaintiff could not prevent or complain of its stating the nature of the component parts and the source from which they were derived if it did not use the trade mark in doing so. For instance, the defendant could state that a certain percentage of its compound was made at a certain place in Paris, however well known as the plaintiff's factory that place might be. If the compound was worse than the constituent, it might be a misfortune to the plaintiff, but the plaintiff would have no cause of action, as the defendant was exercisng the rights of ownership and only telling the truth. The existence of a trade mark [fol. 585] would have no bearing on the question. Then what new rights does the trade mark confer? It does not confer a right to prohibit the use of the word or words. It is not a copyright. The argument drawn from the language of the Trade Mark Act does not seem

to us to need discussion. A trade mark only gives the right to prohibit the use of it so far as to protect the owner's good will against the sale of another's product as his. * * * When the mark is used in a way that does not deceive the public we see no such sanctity in the word as to prevent its being used to tell the truth. It is not taboo. Canal Co. v. Clark, 13 Wall. 311, 327.

"* * * If a man bought a barrel of a certain flour, or a demijohn of Old Crow whiskey, he certainly could sell the flour in smaller packages or in former days could have sold the whiskey in bottles, and tell what it was, if he stated that he did the dividing up or the bottling. And this would not be because of a license implied from the special facts but on the general ground that we have stated. It seems to us that no new rights can be evoked from the fact that the perfume or powder is delicate and likely to be spoiled, or from the omnipresent possibility of fraud. If the defendant's rebottling the plaintiff's perfume deteriorates it and the public is adequately informed who does the rebottling, the public, with or without the plaintiff's assistance, is likely to find it out. And so of the powder in its new form."

it appears from the foregoing that the decree should be modified. Article 2 thereof holding that the defendants have infringed the plaintiff's registered trade-mark should be [fol. 586] supplemented by a further clause that the defendants have been guilty of unfair competition in respect to their sales by reason of a failure to more plainly set forth on the cartons and containers in which their goods have been sold to the public and on the plugs themselves the fact that the repairs and reconditioning were wholly their own. Article 3 of the decree should also be modified by eliminating from (a) thereof sub-division (1) and by adding to sub-division (3) after the word "repaired" the words "or used", and by the elimination of sub-division 5 of (b). With the foregoing modifications the decree should be affirmed.

We think that the contention of the plaintiff that there should be an accounting of profits was properly denied. The District Court declined this relief on the ground that the defendants had attempted compliance with an order

of the Federal Trade Commission. That order required the defendants to cease and desist from:

> "Offering for sale, selling or delivering to others for sale to the public, any spark plug which has been used and thereafter reconditioned in any manner unless the word 'used' or 'second-hand' or 'reconditioned,' or some other word or words of similar import and meaning, have been permanently stamped or fixed on each of such spark plugs in a color in contrast to the surface to which the word is applied and of a size and in such location as to be clearly legible to the purchasers thereof after the same shall have been installed, and unless there has been plainly printed or marked on the boxes, cartons or other containers in which such spark plugs are sold or offered for sale a notice that said spark plugs are used, second-hand or reconditioned."

[fol. 587] There is no proof that the defendants actually deceived the public by "palming off" their goods as the plaintiff's. It is impossible to suppose that the spark plugs were not known to be reconditioned when they were sold at much lower than the price obtained for new ones. The thing that might be doubtful without further clarification upon the cartons and differentiation in the appearance of the plugs was whether they had been reconditioned by plaintiff rather than by the defendants. But there evidently was an attempt to comply with the order of the Federal Trade Commission. Although we think there was not satisfactory compliance and that the decree we are requiring is necessary adequately to safeguard the public, nevertheless there was no likelihood of damage to the plaintiff or profit to the defendants due to any misrepresentation. Under the circumstances the accounting was properly denied. *Sarlehner v. Nielsen*, 179 U. S. 42; *Durable Toy & Novelty Corporation v. J. Chein & Co., Inc.*, 133 F. 2d 853 (C. C. A. 2).

Decree modified in accordance with the foregoing opinion without costs to either party.

[fol. 588] UNITED STATES CIRCUIT COURT OF APPEALS, SECOND CIRCUIT

At a stated Term of the United States Circuit Court of Appeals, in and for the Second Circuit, held at the United States Courthouse in the City of New York, on the 10th day of July one thousand nine hundred and forty-six.

Present: Hon. Augustus N. Hand, Hon. Harrie B. Chase, Hon. Charles E. Clark, Circuit Judges.

CHAMPION SPARK PLUG COMPANY, Plaintiff-Appellant,

v.

PETER SANDERS, et al., Defendants-Appellants

Appeal from the District Court of the United States for the Eastern District of New York.

This cause came on to be heard on the transcript of record from the District Court of the United States for the Eastern District of New York, and was argued by counsel.

On consideration whereof, it is now hereby ordered, adjudged, and decreed that the decree of said District Court be and it hereby is modified in accordance with the opinion of this court without costs to either party.

It is further ordered that a Mandate issue to the said District Court in accordance with this decree.

Alexander M. Bell, Clerk.

[fols. 589-590] [Endorsed:] United States Circuit Court of Appeals, Second Circuit. Champion Spark Plug Co. v. Peter Sanders, et al. 298. Judgment. United States Circuit Court of Appeals, Second Circuit. Filed July 10th 1946. Alexander M. Bell, Clerk.

[fol. 591] UNITED STATES CIRCUIT COURT OF APPEALS FOR THE SECOND CIRCUIT, OCTOBER TERM, 1945

No. 298

CHAMPION SPARK PLUG COMPANY, Plaintiff-Appellant-Appellee,

against

PETER SANDERS, SAMUEL SANDERS, and HARRY SANDERS doing business as the Perfect Recondition Spark Plug Company, Defendants-Appellants-Appellees

PETITION FOR REHEARING—Filed July 25, 1946

To the Honorable Augustus N. Hand, Harrie B. Chase, and Charles E. Clark, Circuit Judges:

The defendants-appellants-appellees, Peter Sanders, Samuel Sanders, and Harry Sanders, doing business as the Perfect Recondition Spark Plug Company, petition this Honorable Court for a rehearing of this appeal, upon the following points:

[fol. 592] Point I

The injunction requires further modification to conform to this Court's opinion.

The lower Court, in line with its idea that the word "Champion" and the type marks must be removed from the plugs, also required their removal from the cartons and containers and any advertising material. The decree so provides in sub-division (b) of Article 3, which is as yet unmodified.

Such a ruling is wholly inconsistent with this Court's views, provided however, that such cartons and advertising material contained defendants' name and address to show defendants did the reconditioning. This Court said in its opinion:

> "It is well settled by the authorities that the defendants have a right to sell an article manufactured by the plaintiff and to say that it has been so manufactured by retaining the latter's trade mark and style numbers to indicate the origin of the goods. If the article the defendants have sold was second-hand and

they repaired it they could still retain the marks on the goods if they gave the public clearly to understand that the goods were not simply those of the original manufacturer but had been repaired by themselves. They have only to tell the truth, and the whole truth, and to tell it plainly. . . .

In the case at bar the defendants were selling goods of a manufacturer of reputation. The repairs were minor ones. They had a right to gain any advantages derived from the good name of the manufacturer so long as they made it clear that the latter was not responsible for any lack of conformity to original standards due to wear and tear or to defendants' repairs."

[fol. 593] The Court also quoted *Prestonettes, Inc.* v. *Coty*, 264 U. S. 359, which says:

"Then what new rights does the trade mark confer? It does not confer a right to prohibit the use of the word or words. It is not a copyright."

Under the law as thus laid down the defendants would seem to have the right to use the word "Champion" on their cartons and containers, and the original type number, for the same purpose that they are left on the plugs, namely, to give the public truthful information as to the original make and type number of the plug inside. Of course, under the opinion of this Court, the defendants have to show on such containers that defendants did the reconditioning, and give their name and address.

Likewise, the defendants seem entitled to advertise to the general effect:

"We have used Champion Spark plugs, type numbers so-and-so, reconditioned and guaranteed by us, for sale. Perfect Recondition Spark Plug Co., 1133 Bedford Ave., Brooklyn, N. Y."

Under the present decree, Article 3, subdivision (b) thereof, the advertising would have to be like this:

"We have some reconditioned spark plugs for sale, whose original make and type numbers we are not at liberty to state . . ."

Such advertising would be ineffective and does not seem contemplated in this Court's opinion.

Furthermore, any rule requiring the word "Champion" and the type number to be removed from the containers and advertising, while they remain on the plugs, would inconvenience the public for no apparent good reason. One would have to open up each container, for instance, to find out the [fol. 594] type number inside, and, before buying, go to special kinds of trouble to find out the original make and type number, omitted from the defendants' advertising.

It is more economical to use the same packaging for all four makes of plugs that the defendants recondition, and simply differentiate the makes by a rubber stamp of the make and type number to be found inside. The special legend provided in Article 3, subdivision (b) would require a special printed container for the Champion reconditioned plugs, and presumably the same arrangement for each of the other three brands. It is submitted that the problem could be adequately handled by uniform packaging, with the make and type number on the end thereof, applied with a rubber stamp, and each carton bearing a uniform legend like the following:

> "Used spark plug(s) repaired and made fit for use up to 10,000 miles by Perfect Recondition Spark Plug Co., 1133 Bedford Ave., Brooklyn, N. Y."

It is only proper, under the opinion, for the defendants' cartons to bear a uniform legend, applying to all four makes of plugs.

If is therefore respectfully suggested that Article 3(b) of the decree be modified further by omitting everything after the words "advertising for sale any such spark plug;" on the fourth line from the botton of page 530 of the Record, and adding something like this:

> "unless such carton, container, wrapper, or holder, or any such advertising or sales material, shall contain a notice or otherwise make it clear that any plug contained or referred to therein is used, and reconditioned by defendants, and shall give the firm name and address of defendants."

[fol. 595] Point II

Defendants should be permitted to market aluminum painted plugs, marked with a hot stamp as in Defendants' Exhibit "O."

It is believed that this Court's view is that the plugs in evidence as Plaintiff's Exhibits 1 to 4 were unsatisfactory because the dark blue paint used insufficiently differentiated the reconditioned plugs from the dark color of the bare steel of the new plugs. The Court's attention is respectfully directed to Defendants' Exhibit "O", which consists of three aluminum painted plugs. These contained the word "USED" in paint of a contrasting color, stamped thereon with an electrical hot stamp that bakes into the paint. It is submitted that such plugs are sufficiently different from new plugs to properly protect the public, and that the defendants should be permitted to market them.

Defendants respectfully protest against so much of the first paragraph of Article 3 as requires the word "Used" to be impressed into the face of the hex by an actual indentation into the metal which shall then be filled with heavy white paint. The objection is due to the following facts:

1. Trying to make these indentations with a hammer and die by hand will obviously break the porcelain insulator. This injury may be plain and cause the plug to be immediately thrown away, or be internal and hairline, not readily visible, and cause the plug to be unsatisfactory in use.

2. It is said that a rolling machine, if obtainable under present conditions, will roll an indentation into the hex without breaking the porcelain. But we cannot be sure of this until the machine is actually tried, and the machine has been quoted at from $1100 to $1400, a very substantial in-
[fol. 596] vestment for the defendants, which we would like to avoid unless it is absolutely necessary. Plaintiff knows all about this (fol. 1532 *et seq.*).

We submit that the defendants should not be required to buy such a machine, and base their hopes of staying in business on its effective performance, for the following reasons:

A. There is no proof that anyone has been misled through the present marking system of a hot stamp, even though the plugs were painted dark blue and resembled somewhat

the color of the bare steel of new plugs. *A fortiori*, the hot stamp method will be a sufficient marking method on plugs painted with aluminum paint or other color sharply contrasting with the bare steel of new plugs.

B. The plaintiff itself by its conduct has admitted that marking with the hot stamp is sufficient. On pages 511 and 512 of the Record (fols. 1531-1534) will be found an order on consent providing that, notwithstanding the terms of the preliminary injunction, which required indentation, the hot stamp method may be used pending the suit. If the hot stamp method was sufficient for the plaintiff then, it is sufficient now, particularly in the absence of any proof of palming off by anybody.

It is therefore suggested that the terms of this order on consent be used as a model for the type of marking in the permanent decree, so that the first paragraph of Article 3 of the decree will read:

> "the word 'Repaired' or 'Used' all in capital letters of a size as large as the face of said plugs will permit, has been stamped and baked upon the hex portion of said plugs of all sizes by an electrical hot press in a contrasting color in a manner clearly and distinctly visible on the background on the face of the metal [fol. 597] shell of said plug, which metal shell and the attached bushing nut shall have been completely covered by permanent aluminum paint, or other paint or lacquer as set forth in Article 2, to provide such background."

Respectfully submitted, John Wilson Hood, Attorney for Defendants-Appellants-Appellees.

[fol. 598] On the face of this petition the prayer should be granted and we do not think it will prejudice the rights of the plaintiff but the latter may answer the petition within 10 days if it so desires.

A. N. Hand, H. B. Chase, C. E. Clark, C. JJ.

United States Circuit Court of Appeals, Second Circuit. Filed August 13, 1946. Alexander M. Bell, Clerk.

IN THE

United States Circuit Court of Appeals

FOR THE SECOND CIRCUIT

No. 298—October Term, 1945

CHAMPION SPARK PLUG COMPANY,
Plaintiff-Appellant-Appellee,

vs.

PETER SANDERS, SAMUEL SANDERS, AND HARRY SANDERS,
DOING BUSINESS AS THE PERFECT RECONDITION
SPARK PLUG COMPANY,
Defendants-Appellants-Appellees.

PLAINTIFF'S REPLY TO PETITION FOR REHEARING

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IN THE

United States Circuit Court of Appeals

FOR THE SECOND CIRCUIT

No. 298—October Term, 1945

CHAMPION SPARK PLUG COMPANY,

Plaintiff-Appellant-Appellee,

vs.

PETER SANDERS, SAMUEL SANDERS, AND HARRY SANDERS, DOING BUSINESS AS THE PERFECT RECONDITION SPARK PLUG COMPANY,

Defendants-Appellants-Appellees.

PLAINTIFF'S REPLY TO PETITION FOR REHEARING

PETITIONERS' POINT I

The opinion of this Court directs a modification of the injunction so as to permit petitioners to retain plaintiff's trade-mark and type marks on their altered spark plugs. Petitioners now seek further modification which, if granted, would permit them to print plaintiff's trade-mark and type marks on their cartons and containers and leave them free to compose their own notices instead of following the form prescribed by the decree.

Whatever may be said in support of the ruling of this Court that petitioners may retain on their altered plugs

the marks placed thereon by plaintiff, the request that they be permitted to print plaintiff's trade-mark on their cartons and containers is in direct conflict with the specific ruling of the Supreme Court in *Prestonettes vs. Coty*, which this Court cited and quoted in support of its ruling.

The granting of petitioners' requests would disregard entirely the distinction between a trade-mark use of the name "Champion" and the inconspicuous use of that name in a truthful explanatory statement regarding petitioners' plugs.

In the *Coty* case defendant was enjoined from doing precisely what these petitioners now seek authority to do, *viz.*, from applying plaintiff's trade-mark to containers for altered products of plaintiff's original manufacture. In the *Coty* case the District Court held that defendant could not apply plaintiff's trade-mark to its containers, but that it might use a label on which was printed the following legend:

> "Prestonettes, Inc., not connected with Coty, states that the contents are Coty's (giving the name of the article), independently rebottled in New York",

every word of which was required to be in letters of the same size, color, type and general distinctiveness.

When the *Coty* case was before this Court it went still further and held that defendant should not even be permitted to use the name "Coty" in an explanatory statement (285 F. 501, 515). The Supreme Court approved the finding of the District Court, stating (p. 368):

> "The defendant, of course, by virtue of its ownership had a right to compound or change what it bought, to divide either the original or the modified product, and to sell it so divided. The plaintiff could not prevent or complain of its stating the nature of the component parts and the source from which they were derived *if it did not use the trade-mark in doing so.*" (Emphasis ours.)

In differentiating between such permissible use of the name "Coty" in an explanatory statement and the prohibited use of it as a trade-mark for defendant's product, or any other use where the name "Coty" would stand out prominently so as to catch the eye of purchasers, the Supreme Court further stated (p. 368):

> "If the name of Coty were allowed to be printed in different letters from the rest of the inscription dictated by the District Court a casual purchaser might look no further and might be deceived. But ***when it in no way stands out*** from the statement of facts that unquestionably the defendant has a right to communicate in some form, we see no reason why it should not be used collaterally, *not to indicate the goods,* but to say that the trade-marked product is a constituent in the article now offered as new and changed." (Emphasis ours.)

The Court thus clearly distinguished between the use of the name "Coty" as part of a collateral explanatory statement, which was held permissible, and its use as the name of the article, which was forbidden. Petitioners now seek permission to do precisely what the Supreme Court held defendant Prestonettes could not do. They seek permission to print plaintiff's trade-mark on the ends of their cartons and containers, wholly separate and apart from any collateral or explanatory statement.

Spark plugs carried in stock by dealers are usually placed on shelves so that the ends of the cartons are exposed to view. (Fol. 121.) Therefore, the granting of petitioners' request to be permitted to print plaintiff's trade-mark and type marks on the ends of the cartons in which their altered plugs are packed for sale would mean that such markings, but not the explanatory notice prescribed by the decree, would be visible to customers as the plugs are displayed on dealer's shelves.

It would not impose any undue hardship on petitioners if they are required to print separate cartons for their used Champion plugs.

What we have said above should not be taken as an admission that we consider the ruling of this Court permitting petitioners to retain plaintiff's trade-mark and type marks on their plugs to be justified by the opinion of the Supreme Court in the *Coty* case. Quite the contrary. As we understand that decision it means that petitioners here can properly make use of plaintiff's name or the name of the plugs as a part of a truthful explanatory statement, such as that authorized by the decree, but that they cannot use the word "CHAMPION" as the name of their product, either by retaining it on the plugs themselves or by printing it on the packages containing them.

Petitioners' argument in support of their request for modification of Article 3-(b) of the decree appears to be completely met by the legend which that paragraph of the decree permits them to print on their cartons and containers, as it appears at the top of page 531 of the record. This is in strict accordance with the decision in the *Coty* case. Similar provision was made by the Eighth Circuit Court of Appeals in the *Reich* case, where the court stated (121 F. (2d) 774):

> "Such a decree will not prevent the defendant from using his own trade-marks or type numbers, nor from printing a truthful explanatory statement as to the origin of the plugs upon the cartons."

Reich's successors in business are carrying on under that decree. They tell the truth about their product by distributing circulars to their customers entitled "Rebuilt Spark Plugs," in the body of which appears:

> "Rebuilts originally made by the * * * Champion Spark Plug Company 13c each." (R. 453.)

Reich's successors also distribute passenger car charts which give the type numbers which they have adopted and the type numbers of the original manufacturers of their plugs in parallel columns (R. 454), and they print on their cartons and containers the legend (R. 458):

> "These repaired spark plugs are genuine plugs, originally manufactured by the Champion Spark Plug Company but owing to a new federal ruling cannot be sold by their original name and number. See chart for our numbers in comparison with the numbers of other manufacturers."

PETITIONERS' POINT II

Having been given authority to retain plaintiff's trademark and type marks on their altered plugs, petitioners now seek permission to omit the only remaining requirements of the decree which might serve as a warning to purchasers of their plugs that they are not new.(1) Instead of painting the metal parts of their plugs with "durable gray or brown or orange or green paint or lacquer" as required by the decree, which would be likely to attract the attention of a prospective purchaser and might result in his seeing the word "USED" stamped in the hex thereof, petitioners seek permission to use aluminum paint, which would give the plugs the appearance of new, bright metal, not at all likely to induce a closer examination which might disclose the presence of the word "USED."(2)

There is no showing that it would be any less expensive to use aluminum paint instead of one of the more distinctive

(1) It is common practice for car owners to have new plugs installed at garages and service stations, where they seldom see the cartons. (Fol. 157.)

(2) The use of aluminum, chromium or nickel plating on the metal parts of new spark plugs is not unusual. Plaintiff has in the past used both nickel and cadmium plating on some types of its automobile plugs and is now using zinc plating on its aviation plugs. These facts were called to the attention of Judge Byers when defendants' counsel urged that the decree should authorize defendants to use alumium paint, which request was refused.

colors called for by the decree, and the effect of such substitution would be to make it less likely that prospective purchasers would examine the plug sufficiently to see the word "USED."

Petitioners further seek to be relieved of the requirements that they indent the letters of the word "USED" in the metal of the plug and fill the indentations with a heavy white paint. This requirement was designed to insure the marking of a warning notice on the plugs which could not be removed or easily obliterated and would remain visible for a substantial period.

Instead of this permanent marking, petitioners seek the right to use what is referred to as "an electrical hot stamp," such as was used by defendants in stamping the word "RENEWED" on the plugs which are in evidence as Exhibits 1 to 4. The inadequacy of such method to provide a permanent, clearly visible marking appears from the cross-examination of plaintiff's witness Grant, who had in his hands two of these exhibit plugs which plaintiff's witness Sibley had stamped "A-6" and "B-4" for identification. The following examination occurred (Fol. 228-230):

> "Mr. Hood:
>
> "Q. Did you notice on the hex of each one of those plugs—
>
> "The Court: (To witness) What do you see on the hex as you look at it?
>
> "The Witness: You see marks where they have been inserted in a car before and you also see stamping on it. I think it says 'A-6' on this one and 'B-4' on the other.
>
> "Q. I am not talking about that. May I see that just a minute, please? A. Yes, sir (handing counsel plugs).
>
> "Q. Now, talking about this stamp, did you notice that (indicating to witness)? A. Now that you have pointed it out, I do, but I had not noticed it before.

"The Court: What is it that you see?

"The Witness: Well, it says 're-'. I know what it is supposed to be but I would not know from reading it.

"Q. What does it say? A. I can see 'R' and then it looks like 'L' and then 'W' and then 'E' and then 'WED'—maybe you can make it out better than I can.

"Q. Isn't that the word 'Renewed' with a little smudge at the top? A. That is what it is supposed to be."

The argument advanced in support of this request is entirely without foundation in the record. In the first place, the Consent Order which petitioners rely on to support their statement that plaintiff "admitted that marking with the hot stamp is sufficient" was made, as appears from the Order itself, upon representations of petitioners' counsel that they could not comply with the requirement of the temporary Order without damage to the plugs unless they provided expensive equipment. (Fol. 1532.) On this representation and the further statements in the Order that the parties were "investigating the possibility of settlement" and that if settlement was not reached they contemplated bringing the suit on for final hearing during January, 1945, the temporary use of the electrical hot stamp was consented to by plaintiff. The Order was not entered until December 6, 1944.

At the close of the direct testimony of plaintiff's witness Sibley, plaintiff's counsel stated that the witness "is in a position to make an estimate of expense of removing these marks and painting the metal parts, etc., and stamping, the stamping of a word in the hex, if you care to hear the testimony." (Fol. 663.) To this suggestion the court inquired whether that was a part of plaintiff's case. Counsel stated that he did not think so and the matter was not gone into. Defendants put in no testimony on

this subject. Therefore, there was nothing for plaintiff to rebut. Petitioners now argue in support of this branch of their petition what they wholly neglected to prove, *viz.*, that it would be impracticable for them to comply with the requirement of the decree regarding the method of marking their plugs.

The Exhibit O plugs which petitioners now seek to have accepted as models for their future painting and marking were offered without any proof as to the method used in marking them and without any reference whatever to that marking. The only questions asked by defendants' counsel regarding these plugs was as to their heat range. (Fols. 1084-1087.)

Plaintiff's counsel, therefore, had no reason to examine the method or permanency of the marking on the hex of these plugs, but judging from the lack of permanency of the markings on the plugs in Exhibits 1 to 4, it is believed that an examination of these Exhibit O plugs would disclose that the markings placed on them by what the petition refers to as "an electrical hot plate" are not permanent and can be easily removed or obliterated.

We respectfully submit that the petition should be denied.

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[fol. 609] UNITED STATES CIRCUIT COURT OF APPEALS FOR THE SECOND CIRCUIT, OCTOBER TERM, 1945

No. 298

(Petition filed July 25, 1946. Decided September 25, 1946)

CHAMPION SPARK PLUG COMPANY, Plaintiff-Appellant-Appellee

against

PETER SANDERS, SAMUEL SANDERS, and HARRY SANDERS, Doing Business as the Perfect Recondition Spark Plug Company, Defendants-Appellants-Appellees

Before Augustus N. Hand, Chase and Clark, Circuit Judges

Per CURIAM:

Upon petition for a rehearing and the reply thereto the opinion in this case filed on July 10, 1946, is supplemented by providing:

1. That for Article 3 of the decree there should be substituted the following:

> [fol. 610] 3: The word REPAIRED or USED all in capital letters of a size as large as the face of said plugs will permit, has been stamped and baked upon the hex portion of said plugs of all sizes by an electrical hot press in a contrasting color in a manner clearly and distinctly visible on the background on the face of the metal shell of said plug, which metal shell and the attached bushing nut shall have been completely covered by permanent aluminum paint, or other paint or lacquer as set forth in Article 2, to provide such background.

2. The decree shall permit the defendants to state on cartons and containers the original make and type numbers provided it is made clear that any plug referred to therein is used and reconditioned by the defendants.

[fol. 611] UNITED STATES CIRCUIT COURT OF APPEALS, SECOND CIRCUIT

At a Stated Term of the United States Circuit Court of Appeals, in and for the Second Circuit, held at the United States Court House, in the City of New York, on the 25th day of September, one thousand nine hundred and forty-six.

Present: Hon. Augustus N. Hand, Hon. Harrie B. Chase, Hon. Charles E. Clark, Circuit Judges.

CHAMPION SPARK PLUG COMPANY, Plaintiff-Appellant-Appellee,

v.

PETER SANDERS, et al., Defendants-Appellants-Appellees

A petition for a rehearing having been filed herein by counsel for the Defendants-Appellants-Appellees,

Upon consideration thereof, it is

Ordered that the opinion of the court herein rendered on July 10, 1946, be and it hereby is supplemented by amending the decree in certain particulars.

Alexander M. Bell, Clerk.

[fol. 612] [Endorsed:] United States Circuit Court of Appeals, Second Circuit. Champion Spark Plug Co. v. Peter Sanders, et al. Order. United States Circuit Court of Appeals, Second Circuit. Filed September 25th, 1946. Alexander M. Bell, Clerk.

[fol. 613] Clerk's Certificate to foregoing transcript omitted in printing.

[fol. 603] UNITED STATES CIRCUIT COURT OF APPEALS FOR THE SECOND CIRCUIT, OCTOBER TERM, 1945

No. 298

(Petition Filed July 25, 1946. Decided September 25, 1946)

(Amended October 18, 1946)

CHAMPION SPARK PLUG COMPANY, Plaintiff-Appellant-Appellee,

against

PETER SANDERS, SAMUEL SANDERS, and HARRY SANDERS, Doing Business as the Perfect Recondition Spark Plug Company, Defendants-Appellants-Appellees

Before Augustus N. Hand, Chase and Clark, Circuit Judges

Per CURIAM:

Upon petition for a rehearing and the reply thereto the opinion in this case filed on July 10, 1946, is supplemented by providing:

1. That for Article 3(a) (3) of the decree there should be substituted the following:

> [fol. 604] 3: The word REPAIRED or USED all in capital letters of a size as large as the face of said plugs will permit, has been stamped and baked upon the hex portion of said plugs of all sizes by an electrical hot press in a contrasting color in a manner clearly and distinctly visible on the background on the face of the metal shell of said plugs, which metal shell and the attached bushing nut shall have been completely covered by permanent aluminum paint, or other paint or lacquer as set forth in Article 2, to provide such background.

2. The decree shall permit the defendants to state on cartons and containers, selling and advertising material, business records, correspondence and other papers, when published, the original make and type numbers provided it is made clear that any plug referred to therein is used and reconditioned by the defendants, and that such material contains the name and address of defendants.

3. Article 3(b) of the decree shall be eliminated.

[fol. 604] SUPREME COURT OF THE UNITED STATES, OCTOBER TERM, 1946

No. 680

ORDER ALLOWING CERTIORARI—Filed December 16, 1946

The petition herein for a writ of certiorari to the United States Circuit Court of Appeals for the Second Circuit is granted.

And it is further ordered that the duly certified copy of the transcript of the proceedings below which accompanied the petition shall be treated as though filed in response to such writ.